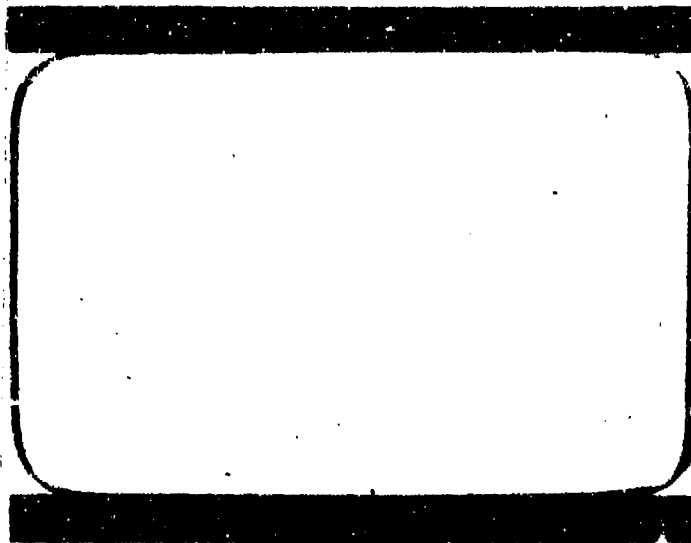


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*Convair Division*

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AUXILIARY POWER SOURCE

GUIDANCE

AIRBORNE

DIFFICULTIES REVIEWS

VOLUMES II, IV & VI

BOOK II

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Convair Division

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B. B. Shaffer

Chief of reliability Engineering

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BOOK II - DIFFICULTIES REVIEW - AIRBORNE CONTAINS THE FOLLOWING VOLUMES

VOLUME I     AIRFRAMES

\*VOLUME II    ABORT SENSING AND IMPLEMENTATION SYSTEM

VOLUME III    AUTOPILOT

\*VOLUME IV    AUXILIARY POWER SOURCE

VOLUME V     ELECTRICAL

\*VOLUME VI    GUIDANCE

VOLUME VII    HYDRAULICS

VOLUME VIII   INSTRUMENTATION

VOLUME IX     PNEUMATICS

VOLUME X      PROPELLANT UTILIZATION

VOLUME XI     PROPULSION INTERFACE

VOLUME XII    PROPULSION

VOLUME XIII   RANGE SAFETY COMMAND

\*VOLUMES II, V AND VI UNDER ONE COVER.

## GENERAL INFORMATION

The Difficulties Review encompasses problems gathered from the factory, the field, (ETR and WTR) and UTP. The factory difficulties are limited to "selloff" and rerun composite testing.

In the UTP area, the difficulties were excerpted from Central Test Control Reports, Problem Reports, Supplementary History Sheets and Problem Review Reports.

Field problems for the Difficulties Review have been limited to captive flights, flight readiness firings, actual countdown dual propellant loading, quad tanking, component reliability testing, and flight acceptance composite tests. Difficulties called out in the search for critical weakness program was not documented.

GSE problems shall be limited to ETR Complex 12, 13, 36A and 36B for the present edition. Hereafter only booster difficulties shall be maintained.

Failure analysis reports cover difficulties from the field and factory and may complement the information above.

The GSE Difficulties Review, Book 1 contains 14 Volumes, one volume for each system, under one cover. Each volume is appropriately indexed.

The Airborne Difficulties Review, Book 2 contains 13 volumes. Each volume is under separate cover except Volumes II, IV and VI. Volumes II, IV, and VI are under one cover because of the limited material contained in each volume. All volumes are appropriately indexed.

A guide to facilitate interpretation of data in the Difficulties Review (GSE and Airborne) is part of each book or volume.

## GENERAL DYNAMICS

Convair Division

**Subject:** Explanatory Information For Use of Difficulties Review (DR)  
Data Tab Runs

This information has been prepared to facilitate use of the DR. It is not intended to describe how the DR was prepared nor the scope of the existing effort.

The Difficulties Review (DR) is presented on a form compatible with automated data processing and printout.

Appearing at the top of the page (outside of blocked-in areas) is the identification of the system and whether it is Airborne or Ground Support Equipment. Appearing with this identification is the date of the document and the page number.

On the right hand side outside of the blocked area, appears the abstract number. An abstract number is assigned to each item of the Difficulty Review to facilitate traceability to the original input document.

Appearing under the major identification are blocks wherein the information on component or system difficulty is identified and explained. Attached are samples of pages coded for reference to the following definitions and explanations:

### CODE

### EXPLANATION

①

This group of blocks callout system, subsystem, test/report number, failed component name, difficulty (Dif) data source, and GDC part number if applicable. Also called out here is the vehicle number, if applicable, and the date of difficulty.

In the same row, the site location, and in case of a flight, captive flight, or countdown, the time will be entered.

The block containing PRI and OTH refer to whether or not the failure is primary or a secondary failure. A secondary failure is to be interpreted as caused by another discrepancy.

The last block in this row is obvious and requires no further explanation:

②

Refers to a major system of the launch vehicle.

③

Refers to subsystem of a major vehicle system if applicable, (Booster, sustainer, etc).

## GENERAL DYNAMICS

Convair Division

<u>CODE</u>	<u>EXPLANATION</u>
④	Is a report number as opposed to type of report, (UTP, Countdown, Flight, FAR, etc.).
⑤	Is a type of report, such as a FAR, UTP, FRF, etc.
⑥	Refers to a component part by name.
⑦	Is a component piece part of the component and referred to by name, (plug, seal, wiring, diode, etc., only where applicable).
⑧	Is a GDC part number, if applicable.
⑨	Refers to a site or location at time of discrepancy on the component or vehicle system.
⑩	Is the vehicle on which discrepancy occurred. Vehicle number listed only if unit was installed on a vehicle at time of discrepancy.
⑪	Is the vendor part number, if applicable.
⑫	Is the vendor name, if applicable.
⑬	Is the failure caused by other component or other system. This item defines the failure as secondary or not secondary.
⑭	Refers to the primary failure. If item is labeled <u>no</u> , then item (13) may appear as a <u>yes</u> .  Should item (13) appear as a <u>yes</u> , then an abstract will have been written to identify the cause of failure affecting the component referred to in the Difficulty Review, Item 6. It should be noted that a multiple failure may be recorded in these blocks, (yes/yes), or if a failure did not occur, (no/no).
⑮	Defines the failure mode, and if identifiable, the cause is called out. A careful review of the failure mode is made to determine effect on system operation and vehicle effort.

**GENERAL DYNAMICS**

**Convair Division**

**CODE**

**EXPLANATION**

**16**

Defines the system effect. This effect is the result of the failure mode assigned to the component.

**17**

Defines the vehicle effect. This effect is a result of the failure mode and the result of the system effect.

It should be noted that corrective action may be taken whether or not the failure was confirmed.

**18**

Lists the corrective action. Taken by GDC, the vendor, or both.



GENERAL DYNAMICS  
CONVEYER DIVISION

17 FEB 1966

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SIMPLIFIED REVIEW-HYDRAULIC SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	SIP DATA SOURCE PART NUMBER	VEHICLE DATE SIP	SITE TIME SIP	PSI QTY	VEHICLE NAME VEHICLE PART NO
----------------------	---	--------------------------------	---------------------	------------------	------------	---------------------------------

CORRECTIVE ACTION-DEPT 541-3 TO PERFORM RETEST ON TWO (2) ADDITIONAL UNITS FROM LOT 13, TO DETERMINE LOT ACCEPTABILITY  
ITV AND PROVIDE COMPARISON DATE.

HYDRAULIC-A/B  
BOOSTER

UTP-PET  
E7-00000-1

041809 CONVAIR YES VICKERS  
NO AA-00004-R-2A

FAILURE MODE-OUT OF SPECIFICATION. 8/M 400-0438, PEAK TRANSIENT PRESSURES WERE 4100 TO 4000 PSIG, ALLOWABLE IS 4000  
PSIG. NO. FROM TO FULL FLOW TIME IS 0.137 SECONDS, ALLOWABLE TIME IS 0.08 SECONDS.

CORRECTIVE ACTION-SUBMIT ECP 7609 TO REVISE TEST REQUIREMENTS TO PRACTICAL LEVELS.

HYDRAULIC-A/B  
BOOSTER

PAR  
E7-00000-1

041809 FACTORY YES VICKERS  
NO AA-00004-R-2A

FAILURE MODE-LEAK-EXTERNAL-CONTINUOUS OIL SEEPAGE WAS OBSERVED DURING CHECKOUT, CAUSED BY DEFECTIVE SEAL AT PUMP  
INLET PRESSURE SENSING PORT.

CORRECTIVE ACTION-VENDOR REVIEWED STOCK OF O-RINGS AND INFORMED THEIR PERSONNEL OF CORRECT SEAL INSTALLATION PROCEDURE.

HYDRAULIC-A/B  
BOOSTER

PAR  
E7-00000-1

0071-01 MTH YES VICKERS  
040709 YES AA-00004-R-2A

FAILURE MODE-LEAK EXTERNAL. PUMP WAS REPORTED LEAKING AFTER HOT FIRING TEST. CASE WAS OVERPRESSURIZED CAUSING DAMAGE  
TO CASE COVER SEAL.

CORRECTIVE ACTION-NO CORRECTIVE ACTION RECOMMENDED SINCE DAMAGE OCCURRED DUE TO IMPROPER OVERPRESSURIZATION OF  
THE PUMP.

HYDRAULIC-A/B  
BOOSTER

UTP-PET  
E7-00000-1

041810 CONVAIR YES VICKERS  
NO AA-00004-R-2A

FAILURE MODE-LEAK EXTERNAL. 8/M 400-0438 FAILED TO MEET CASE SEAL LEAKAGE REQUIREMENTS OF 0.0 GPM DURING PRT-1AT.  
THIS UNIT ALSO FAILED TO MEET PEAK TRANSIENT PRESSURE REQUIREMENTS. REFER TO PRT-4000.

SYSTEM EFFECT-NONE.

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17 FEB 1966

GENERAL DYNAMICS  
COMPAIR DIVISION

## CIPPLICITIES REVIEW-HYDRAULIC SYSTEM-AIRBORNE

PAGE 0046

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	REF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME BI	POL OTH	VENDOR NAME VENDOR PART NO
CORRECTIVE ACTION-BOOSTER HYDRAULIC FILL AND BLEED PERFORMED.						
HYDRAULIC-A/S BOOSTER	77A0807/P4-WO-B1-QACS	COMPOSITE-780/79PL	5519	300	NO	NO
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. TEST WAS RUN WITHOUT BOOSTER HYDRAULICS BECAUSE BOOSTER MPV COULD NOT BE OPERATED REMOTELY. THIS WAS NOTED DURING AUTOPILOT FINAL CHECKS.						
SYSTEM EFFECT-OPERATION DOES NOT START.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-BOOSTER MPV HAND VALVE, MICROSWITCHES VS AND V1 ADJUSTED TO MAKE WIPER CONTACT.						
HYDRAULIC-A/S BOOSTER	60C/BMF65-048/701-401-00-50	FLIGHT	300	9-1	YES	NO
FAILURE MODE-LEAK. B1 HYDRAULIC ACCUMULATOR PRESSURE EXHIBITED NO PRESSURE DIFFERENCE DURING THE OIL EVACUATION SEC VENCE.						
SYSTEM EFFECT-POSSIBLE CONTAMINATION. ALTHOUGH THE FAILURE MODE INDICATES THE POSSIBILITY OF AIR IN THE BOOSTER HYDRAULIC SYSTEM, SYSTEM PERFORMANCE WAS SATISFACTORY.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-NONE. THE POSSIBILITY OF CONTAMINATION WAS NOT CONFIRMED BY ANY OTHER TELEMETRY DATA.						
HYDRAULIC-A/S BOOSTER	60C/BMF65-039/28-401-00-177	FLIGHT	1770	8-2	NO	NO
FAILURE MODE-OUT OF TOLERANCE. BOOSTER HYD ACCUM. PRESS. REARM. N33P AND HYD. PUMP OUTLET PRESS. REARM. N33P INDICAT ED AN INITIAL NORMAL PRESS. RISE BUT TO A LOWER (3190 PSIA) THAN NORMAL (3300 PSIA) PEAK AT 2.3 SEC. THE PRESS. THEN DECAYED TO 2700 PSIA DURING NEXT 1.5 SEC. SPECIFIC CAUSE UNKNOWN BUT SYMPTOMATIC OF UNUSUALLY HEAVY DEMAND ON SYSTEM.						
SYSTEM EFFECT-OPERATION TOO LOW. BOOSTER HYDRAULIC PRESS. LOWER THAN NORMAL FOR A TIME PERIOD OF -2.3 SEC TO 1.5 SEC C. NO ADVERSE EFFECT NOTED ON SYSTEM PERFORMANCE.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-NONE.						
HYDRAULIC-A/S BOOSTER	60C/BMF65-015-041047-1/4-780-01-71	COMPOSITE-780/79PL	7187	8-4	YES	NO

16

17

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**ABORT SENSING  
AND  
IMPLEMENTATION SYSTEM  
AIRBORNE  
DIFFICULTIES REVIEW**

# DIFFICULTIES REVIEW ASIS SYSTEM AIRBORNE

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13 JUN 1968

GENERAL DYNAMICS  
CONRAIN DIVISION

DIFFICULTIES REVIEW-ASIS-A:ISSORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRG OTH	VEHICLE MAKE VEHICLE PART NO
ASIS-A/B	HS-99-84-3418P TRANSDUCER-FUNCTIONAL	1AR 27-11111-039	1446 630430	FACTORY NO	NO	007965
FAILURE MODE-OUT OF TOLERANCE. VAN-1 AND ROLL-1 ORIBRATE DETECTORS COULD NOT BE CALIBRATED TO NOMINAL. AN INCORRECT TEST PROCEDURE AND INSUFFICIENT RANGE OF SELECTED RESISTORS CAUSED THE DIFFICULTY.						
CORRECTIVE ACTION-TEST PROCEDURE WAS REVISED AND RESISTOR VALVES WERE CHANGED.						
ASIS-A/B	HS-99-84-3459-P TRANSDUCER-FUNCTIONAL	1AR 27-11111-039	1300 630410	ETR NO	NO	007966
FAILURE MODE-OUT OF TOLERANCE. THE P-2 AND T-2 ORIBRATE DETECTOR FREQUENCY RESPONSE WAS 85PCT ABOVE NOMINAL. AN INCORRECT TEST PROCEDURE AND INSUFFICIENT RANGE OF SELECTED RESISTORS CAUSED THE UNIT TO BE CALIBRATED INCORRECTLY.						
CORRECTIVE ACTION-TEST PROCEDURE WAS REVISED AND RESISTOR VALVES WERE CHANGED.						
ASIS-A/B	HS-99-84-3259-P TRANSFORMER	1AR 27-11111-039	1300 630227	FACTORY NO	YES	007967
FAILURE MODE-OUT OF TOLERANCE. SECONDARY VOLTAGES OF TRANSFORMER T-2 WERE REPORTEDLY UNBALANCED. IMPROPER NUMBER OF TURNS IN T-2 CAUSED UNBALANCE.						
CORRECTIVE ACTION-VENDOR NOTIFIED AND REQUESTED TO REVIEW-MANUFACTURING TECHNIQUES, INSPECTION RECORDS, PROCESS FOR COUNTING NUMBER OF TURNS, AND TAKE CORRECTIVE ACTION AS REQUIRED.						
ASIS-A/B	HS-99-14-172-F PRESSURE SWITCH	1AR 67-44900-359	144-0 630215	FACTORY NO	YES	008029
FAILURE MODE-CONTAMINATION. CAUSED BY RESIDUE THAT WAS FORMED DURING A CITRIC-ACID RINSE FOLLOWING SODA WORKING OF THE ELEMENT						
CORRECTIVE ACTION-THE CITRIC ACID RINSE WAS REPLACED BY DISTILLED WATER TO ELIMINATE RESIDUE RESULTING FROM REACTION BETWEEN THE CITRIC ACID AND SODA.						
ASIS-A/B	HS-99-84-3120P CONTROL BOX, DIODE	1AR 27-11111-039	1300 630117	FACTORY NO	YES	008030
FAILURE MODE-PREMIATURE OPERATION. CONTAMINATION ON THE CRYSTAL OF DIODE FORMED A LEAKAGE PATH GIVING A HIGH VOLTAGE OUTPUT AND CAUSING PREMIATURE OPERATION OF THE UNIT. CONTAMINATIONS FORMED BY OPERATION OF THE DIODE CASE.						

15 JUN 1968

GENERAL DYNAMICS  
COMMAIR DIVISION

DIFFICULTIES REVIEW-ASIS-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
	CORRECTIVE ACTION-REQUESTS FOR IMPROVEMENT IN DIODE EVACUATING CAPABILITY WERE FORWARDED TO THE VENDOR OF THE FAILED DIODE. VENDOR REPLIED DIODE INTERIOR EVACUATING BULBING IMPROVED.						0000004
ASIS-A/B	ES-99-24-301F ABORT SENSING CONTROL UNIT/CONNECT 27-11111-835 OR	FAR	021001	FACTORY	YES		0000006
	FAILURE MODE-SHORT SELECT). THE UNIT WAS REJECTED FOR BURNED PINS ON THE J-1 CONNECTOR. BECAUSE PIN 8 WAS SHORT TO THE SHELL, CORRECTION OF THE CABLE TO THE PLUS WITH VOLTAGE ON THE CABLE CAUSED A SHORT CIRCUIT BETWEEN PIN 8 AND THE SHELL. THE NEXT PIN ALSO KEPT PIN 8 FROM MAKING GOOD CONTACT AND CAUSED IT TO BURN.						
	CORRECTIVE ACTION-PERSONNEL WERE CAUTIONED ABOUT FORCING THE CONNECTION AND ABOUT CONNECTING THE CABLE WHILE THE CABLE HAS VOLTAGE APPLIED.						0000007
ASIS-A/B	HS-38-24-301F CONTROL UNIT	FAR 27-11111-835	020922	ETR	YES	SD/C NO	
	FAILURE MODE-OUT OF TOLERANCE. THE TURNING RATE IN THE REDUNDANT ROLL CHANNEL REQUIRED TO CAUSE ABORT WAS FOUND TO BE MORE THAN 5 PERCENT BELOW NOMINAL. THIS APPEARS TO HAVE BEEN CAUSED BY CONNECTING THE R1 SYRO TO BOTH OVERDRIVE DETECTORS.						
	CORRECTIVE ACTION-PROCEDURE 27-91942 BK 1 WAS CHANGED TO DETECT ERRORS OF THIS NATURE. THE TEST SET WAS CHANGED TO FACILITATE DETECTING A MISCONNECTION.						0000008
ASIS-A/B	HS-99-24-301F ABORT SENSING CONTROL UNIT	FAR 27-11111-835	020920	FACTORY	YES	SD/C NO	
	FAILURE MODE-FAIL DURING OPERATION. DURING MARRIAGE TESTS THE ABORT VOLTAGE LEVEL VARIED. ADJUSTMENT COULD NOT BE MADE DUE TO EXTREME SENSITIVITY. THE RESET REMAINED AT AN UNUSUALLY LOW LEVEL. FAILURE ANALYSIS FOUND A FAULTY TRIM POT. FAILURE WAS CAUSED BY SOLDER BALL IN SYRO CAUSING STICKTION AND FAULTY TRIM POT OF UNIT.						
	CORRECTIVE ACTION-EFFECTIVE AUG. 6, 1961 THE VENDOR OF THE TRIM POT MADE A DESIGN CHANGE. A FOUR POINT ELEC. PICKOFF P IS NOW IN USE INSTEAD OF THE SINGLE-POINT PICKOFF. ALSO A SOLID PRECISION METAL WIPER CARRIAGE IS USED INSTEAD OF A SOLID PLATED CARRIAGE.						0000009
ASIS-A/B	HS-99-24-301F ABORT SENSING AND CONTROL UNIT-6VR O	FAR	020920	FACTORY	NO	MINNEAPOLIS-NO YES NETWELL	
	FAILURE MODE-ERRATIC OPERATION. THE ROLL RATE CHANNEL 1 FAILURE RESULTED FROM A SOLDER BALL IN THE ROLL RATE SYRO CARRIER. POSSIBLY A DEFECTIVE TRIMPOT CONTRIBUTED TO THE ERRATIC OPERATION.						
	CORRECTIVE ACTION-TRIMPOT VENDOR CHANGED WIPER MATERIAL AND INCREASED THE NUMBER OF PICKOFF POINTS. THE SYRO VENDOR MADE CHANGES IN SOLDERING METHODS AND QUALITY CONTROL PRACTICES TO PRECLUDE THE REOCCURENCE OF SOLDER BALLS.						

15 JUN 1986

GENERAL DYNAMICS  
COMMERCIAL DIVISION

## DIFFICULTIES REVIEW-ARIS-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	WORKER NAME VEHICLE PART NO
ASIS-A/B	MC-98-24-280P CONTROL UNIT TRANSISTOR	FAR 27-11111-035	080013	ETR	NO	NO
FAILURE MODE-FAILED TO OPERATE AT THE PRESCRIBED TIME. THE UNIT WAS TESTED AND FOUND TO BE INCORPORATIVE. SIX TRANSISTORS HAD OPEN EXISTERS AND PERHAPS OTHERS WERE DAMAGED DUE TO INCORRECT APPLIED VOLTAGE BECAUSE OF A MISWIRING JUNCTION ON BOX.						
CORRECTIVE ACTION-NONE.						
ASIS-A/B	MC-98-280P ABORT SENSING CONTROL UNIT	FAR 27-11111-035	080013	ETR	YES	NO
FAILURE MODE-FAILED DURING OPERATION DUE TO ELECTRICAL SHORT IN J-BOX 27-43624-3 WIRING TO PINS R AND T IN PLUS PS W WERE REVERSED.						
CORRECTIVE ACTION-NONE. THIS WAS CONSIDERED A SECONDARY TYPE FAILURE.						
ASIS-A/B	MC-98-24-280P CONTROL UNIT DIODE	FAR	080017	FACTORY	YES	NO
FAILURE MODE-OUT OF TOLERANCE. AN OUT OF TOLERANCE SIGNAL WAS SENT IN ERROR. THIS WAS DUE TO SHORTED DIODE CR 208 (S4008) ON PANEL A1 OF MODULE A7.						
CORRECTIVE ACTION-THE VENDOR WAS RECOMMENDED THE USE OF AN ALTERNATE DIODE (IN 2035) AS A REPLACEMENT.						
ASIS-A/B	MC-98-24-280P ABORT SENSING CONTROL UNIT	FAR 27-11111-035	080017	FACTORY	YES	NO
FAILURE MODE-OUT OF TOLERANCE. DUE TO DEFECTIVE CR208 IN MODULE A7.						
CORRECTIVE ACTION-CHECK OUT PROCEDURE 27-91944 WAS CORRECTED TO INSURE ALL PRESSURE SWITCHES ARE MONITORED DURING COMPONENT TESTING EFFECTIVE AUG. 17, 1982. ECU 35814 DIODE 3W08 NO LOWER MANUFACTURED. NO CORRECTIVE ACTION NEEDED BY.						
ASIS-A/B	AX82-00350/PC-ACD-05-113 ABORT SENSING CONTROL UNIT	COMPOSITE-FACTORY 27-11111-035	1130	FACTORY	YES	NO
FAILURE MODE-PREATURE OPERATION. BOOSTER ABORT DISARM AND FLIGHT LOCK-IN SIGNALS WENT ON MOMENTARILY AT 7-3 MINUTE S. THE CAUSE OF THIS IRREGULARITY COULD NOT BE DETERMINED AND NUMEROUS RETESTS FAILED TO DUPLICATE THE CONDITION SYSTEM EFFECT-NONE.						

13 JUN 1966

GENERAL DYNAMICS  
CONTAIN DIVISION

DIFFICULTIES REVIEW-ASIS-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP TIME	SITE DIP	VEHICLE NAME VEHICLE PART NO	
VEHICLE EFFECT-COMPOSITE RESCHEDULED. RUN OF COMPOSITE MADE. STATE PERFORMED SATISFACTORILY.						
CORRECTIVE ACTION-NOT KNOWN.						
ASIS-A/B	AK82-0036/ARI41-0-1-113/PC-4CO-04- 113 ABORT SENSING CONTROL UNIT	COMPOSITE-FACTORY	1130	FACTORY	NO	090401
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME- THE MANUAL RESET DIAL ON THE TEST SEQUENCER WAS NOT RESET BEFORE 3 PART OF THE COMPOSITE TEST. AS A RESULT THE ENTIRE ASIS PROGRAM WAS INCORRECT.						
SYSTEM EFFECT-OPERATION DOESNT START- FAILED TO RESET THE MANUAL RESET BEFORE TEST START- SEQUENCER DID NOT PROGRAM						
VEHICLE EFFECT-COMPOSITE RESCHEDULED- RUN OF COMPOSITE REQUIRED.						
CORRECTIVE ACTION-OPERATOR ERROR- EQUIPMENT RESET AND TEST REWIND.						
ASIS-A/B	A-99-84-2087 RELAY	FAR	800814	FACTORY	YES HART NO	090325
FAILURE MODE-FAIL DURING OPERATION. THE RELAY CONTACTS BETWEEN TERMINALS 3 AND 7 WERE REPORTEDLY FOUND OPEN.						
CORRECTIVE ACTION-NONE. FAILURE WAS NOT CONFIRMED.						
ASIS-A/B	MC-98-24-202P ABORT SENSING CONTROL UNIT	FAR	800823	ETR	YES 60/C NO	090791
FAILURE MODE-OUT OF TOLERANCE. DURING CHECK IN THE SPYRO LAB. THE DELAY OPERATION ABORT SIGNAL MEASURED 2.7-VOLTS DC. SPECIFICATIONS CALLED FOR 2.1 PLUS OR MINUS .03 VOLT DC. UNIT WAS SUBJECTED TO A COMPLETE ELECTRICAL TEST. FAILURE WAS NOT CONFIRMED.						
CORRECTIVE ACTION-ETR AND FACTORY TEST PROCEDURES ARE BEING REVISED FOR COMPLETABILITY EFFECTIVE JUNE 22 1966.						
ASIS-A/B	MC-98-84-2047 SENSING CONTROL UNIT-ABORT	FAR	800821	FACTORY	YES NO	090797
FAILURE MODE-CONTAMINATION. SPECTROGRAPHIC ANALYSIS PROVED A HIGH CONCENTRATION OF MERCURY WAS FOUND IN THE FORM PO TYPE COMPOUND ESTIMATED TO BE 0.1 PCT. FACTORY REJECTION						
CORRECTIVE ACTION-MANUFACTURERS CONTAINING MERCURY WERE REMOVED MAY 7 1966.						



GENERAL INVESTIGATIVE  
DIVISION

2006-11-16 11:11:11

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PR1 OTH	VEHICLE NAME PART NO
AS13-A/B	WG-98-24-234F ABORT SENSING CONTROL UNIT	FAR 27-11111-035	080305	ETR	YES NO	YES NO
<p>FAILURE MODE-OUT OF TOLERANCE. DURING CHECK IN SYRO LAB, FOR 27-0305-0802A, THE PRESSURE SWITCH AND LOW-VOLTAGE 516 VAL (E34X) WAS MEASURED OUT OF TOLERANCE ON THREE CONSECUTIVE RUNS. UNIT WAS SUBJECTED TO COMPLETE ELECTRICAL TESTS, AND MONITORED FOR THREE HOURS FAILURE COULD NOT BE CONFIRMED.</p>						
<p>CORRECTIVE ACTION- ETR AND FACTORY TEST PROCEDURES WERE REVISED FOR COMPARABILITY, EFFECTIVE JUNE 23 1962.</p>						
AS13-A/B	WG-98-24-234F ABORT-SENSING AND CONTROL UNIT	FAR 27-11111-035	080517	ETR	YES NO	YES NO
<p>FAILURE MODE-OUT OF TOLERANCE. 4 OF 8 OPERATE DETECTORS HAD A HIGH BIAS VOLTAGE. THE MOST PROBABLE CAUSE OF FAILURE WAS DUE TO THE USE OF AN UNCALIBRATED OSCILLOSCOPE.</p>						
<p>CORRECTIVE ACTION-E.O.P. TEST PROCEDURES WERE REVISED TO CLARIFY THE MEASUREMENT TECHNIQUE AND TO CALL OUT THE USE OF A DIGITAL VOLTMETER INSTEAD OF AN OSCILLOSCOPE EFFECTIVE MAY 19 1962.</p>						
AS13-A/B	WG-98-24-234F CLOCK	FAR 27-11111-035	080418	ETR	YES NO	YES NO
<p>FAILURE MODE-ERRATIC OPERATION. ABORT SENSING CONTROL UNIT EXHIBITED A LOW FREQUENCY CHATTERING NOISE IN ADDITION TO THE NORMAL 900 CPS HUMMING. FAILURE WAS ATTRIBUTED TO A FAULTY 400CPS SINGLE PHASE SYNCHRONOUS CLOCK. FAILURE ANALYSIS OF THE CLOCK WAS CANCELED BY REQUEST OF AIR FORCE QUALITY CONTROL.</p>						
<p>CORRECTIVE ACTION-NONE.</p>						
AS13-A/B	WG-98-24-234F ABORT SENSING CONTROL UNIT	FAR 27-11111-035	080417	ETR	YES NO	YES NO
<p>FAILURE MODE-OUT OF TOLERANCE. DURING CHECK OUT PI OPERATE DETECTOR BIAS VOLTAGE MEASURED MORE THAN 40 PERCENT BELOW EOP REQUIREMENTS.</p>						
<p>CORRECTIVE ACTION-ALL UNITS NOW BEING TESTED TO REVISED VERSION OF E.O.P. EFFECTIVE MAY 19 1962, DUE TO VARIANCES A NO INTERPRETATION OF OLD EOP.</p>						
AS13-A/B	WG-98-24-211-0 CONTROL UNIT/TRANSMITTER	FAR 27-11111-035	080618	FACTORY	YES NO	YES NO
<p>FAILURE MODE-FAIL DURING OPERATION. TWO UNITS WERE ANALYZED VIA THIS REPORT. ONE UNIT HAD LOW GAIN IN THE V-3 CHANNEL. THE OTHER IN THE P-1 CHANNEL. FAILURES CONFIRMED. CAUSE-LOW GAIN OF THE INPUT TRANSISTORS (TYPE 2N999). TRANSMITTER CDS WERE WITHIN RANGES. SPEEDS, BUT ON THE LOW END.</p>						

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GENERAL DYNAMICS  
COMMERCIAL DIVISION

## DIFFICULTIES REVIEW-ASIS-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SCHEMATIC PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PSI O/F	VEHICLE NAME VEHICLE PART NO	
	CORRECTIVE ACTION-SINCE THERE WERE NO FEW ASIS UNITS TO BE MADE, TRANSISTORS TYPE 2N999 WERE HAND SELECTED FOR HIGH GAIN CHARACTERISTICS. THIS WAS DONE IN LIEU OF A DESIGN CHANGE.						093461
ASIS-A/S	MEAS-24-21EF ABORT SENSING CONTROL UNIT/TRANSISTOR 27-11111-039 FOR	FAR	08-111	FACTORY	YES	NO	093448
	FAILURE MODE-FAIL DURING OPERATION. UNIT REJECTED DUE TO LOW BIAS ON THE V-2 OVERALL DETECTOR CHANNEL. FAILURE CONFIRMED. CAUSE-COLLECTOR LEAD OF TRANSISTOR TYPE 2N999 WAS NOT SOLDERED AND LOW GAIN OF TRANSISTOR 2N999.						
	CORRECTIVE ACTION-INSPECTION TECHNIQUES WERE IMPROVED AND TRANSISTORS TYPE 2N999 ARE NOW HAND SELECTED FOR HIGH GAIN CHARACTERISTICS.						093744
ASIS-A/S	AE80-0933/80/APN-401-00-83	FLIGHT	802 011129	14 1.9	YES NO		
	FAILURE MODE-OUT OF SPECIFICATION OR TOLERANCE. LOW TANK PRESSURE DROPPED BELOW SPECIFICATION (23.7-28.0 PSIG) AFTER R LIFTOFF TO A MINIMUM OF 22.7 PSIG AT 1.9 SECONDS.						
	SYSTEM EFFECT-OPERATION TOO LOW.						
	VEHICLE EFFECT-NONE.						
	CORRECTIVE ACTION-A POTENTIAL PROBLEM WITH RESPECT TO THE ABORT THRESHOLD AT THE MERCURY ABORT SENSING AND IMPLEMENTATION SYSTEM (ASIS). THE BOOSTER PHASE ASIS ABORT THRESHOLD FOR LOW TANK ULLAGE PRESSURE WAS CHANGED FROM 21.5 PLUS OR MINUS 1.0 PSIG TO 19.5 PLUS OR MINUS 1.0 PSIG, AND A PRESSURE FILTER WAS ADDED TO THE ASIS SENSING LINE.						093559
ASIS-A/S	AE81-0094/FC-4CO-03-129 ABORT SENSING CONTROL UNIT	COMPOSITE-FACTORY 27-11111-039	1080 011105	FACTORY	NO	NO	
	FAILURE MODE-PREATURE OPERATION-MOMENTARY ABORT CONDITION GIVEN BY ASIS AT START OF TEST. TROUBLE CAUSED BY SIMULTANEOUS ACTIVATION OF THE TWO DUSTAINER HYDRAULIC PRESSURE SWITCHES LOCATED IN TA 43 OF TEST 4001.						
	SYSTEM EFFECT-OPERATION STOPS PREMATURELY-MOMENTARY ABORT WILL CAUSE LOSS OF MISSION.						
	VEHICLE EFFECT-COMPOSITE RESCHEDULED. POST COMPOSITE TESTING REQUIRED TO CORRECT PROBLEM.						
	CORRECTIVE ACTION-SWITCHES REAS/USTED TO ACTIVATE AT DIFFERENT TIMES.						
ASIS-A/S	ME-08-24-168P PRESSURE SWITCH, MURKOE	FAR	080 010908	ETR	YES	BOUNCE NO	
	FAILURE MODE-FAIL TO OPERATE. DID NOT SIGNAL AN ABORT DURING A J-PACT TEST.						

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GENERAL DYNAMICS  
CONVAIR DIVISION

DIFFICULTIES REVIEW-ASIS-A128086

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRE DIF	VEHICLE NAME PART NO
ASIS-A/B	ASIS-24-1647 PRESSURE SWITCH, MANORREL	FAR 87-44800-578	800 810808	ETR	YES	BOULING
FAILURE MODE-FAIL TO OPERATE. DID NOT SIGNAL AN ABORT DURING A J-PAC/ TEST.						
ASIS-A/B	ASIS-24-120 ABORT PRESSURE SENSING SWITCH, L18 UTO OXYGEN TANK PRESSURE	FAR	1000 810817	ETR-J	YES	BOULING LABORAT
FAILURE MODE-LEAK EXTERNAL. THE SWITCH FAILED DURING A LEAK CHECK. THE HIGH PRESSURE SIDE OF THE SWITCH HAD 27 PSIG NITROGEN APPLIED TO SIMULATE THE LIQUID OXYGEN TANK FLIGHT PRESSURE. GAS WAS LEAKING OUT OF THE ATMOSPHERIC VENT PORT. DISASSEMBLY DISCLOSED THAT THE O-RINGS AT THE LOW PORT WERE DISTORTED AND PINCHED.						
CORRECTIVE ACTION-EXAMINATION DID NOT REVEAL CAUSE OF LOW RESISTANCE ACROSS MANORREL. CHECKS WILL BE MADE ON X-1 DAY TO DETECT THIS TYPE OF FAILURE. THE VENDOR WAS REQUESTED TO REDISIGN ITEM TO USE A SOLID MANORREL INSTEAD OF A WOUND ONE.						
ASIS-A/B	ASIS-0055/PC-ACC-01-100 ABORT SENSING CONTROL UNIT	COMPOSITE-FACTORY	1000 810825	FACTORY	NO	
FAILURE MODE-PREATURE OPERATION. ABORT OCCURRED AT 200 SECONDS WHICH IS 20 SECONDS PRIOR TO THE TIME CALLED OUT IN THE EVALUATION DOCUMENT.						
SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS. ABORT COMMAND GIVEN AND SUSTAINER ENGINE SHUTOFF COMMAND GIVEN TOO EARLY.						
VEHICLE EFFECT-COMPOSITE DELAYED. POST COMPOSITE TEST REQUIRED.						
ASIS-A/B	ASIS-24-080 ABORT SENSING CONTROL UNIT	FAR 87-11111-8	801808 810825	ETR	YES	
FAILURE MODE-OUT OF TOLERANCE. UNIT WAS REJECTED IN THE LAB. THE REJECTION WAS FOR A REPORTED ABORT CONDITION AT 8.0 SECONDS PER SECOND ROLL RATHER THAN THE NORMAL 8.7 SECONDS PER SECOND. A BUILD UP OF TOLERANCES GAVE AN UNKNOWN SECOND WITH SUBSEQUENT REJECTION OF THE UNIT.						

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GENERAL DYNAMICS  
CONVAIR DIVISION

DIFFICULTIES REVIEW-ASIS-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SIZE TIME DIP	PM OWN	VENDOR NAME VENDOR PART NO
CORRECTIVE ACTION-CONVAIR HAS TAKEN ACTION AND CHANGED THE PROCEDURES AND MODE OF TESTING TO PRECLUDE REJECTIONS OF THIS TYPE.						
ASIS-A/B	98-24-079 CONTROL UNIT, POTENTIOMETER	PAR 27-11111-1	801800	ETR	YES	ZEMER NO
FAILURE MODE-FAIL TO OPERATE. THE REPORTED FAILURE WAS NO ABORT CONDITION OBTAINED WHEN ADJUSTING THE YAW 1 POTENTIOMETER.						
CORRECTIVE ACTION-INSPECTION FOR THE CORRECT INSTALLATION AND WIRING OF COMPONENTS HAS BEEN INCREASED THROUGH QUALITY CONTROL PROCEDURES. THE ZEMER DIODE MANUFACTURER HAS BEEN NOTIFIED AND SHOWN THE MANUFACTURING DISCREPANCY FOR HIS CORRECTIVE ACTION.						
ASIS-A/B	AE80-0747/P4-402-00-79 ASIS INTERMEDIATE BULKHEAD DELTA P PRESSURE SWITCH	FLIGHT	780 800919	14 ETR 0.3	YES NO	
FAILURE MODE-PREATURE OPERATION. AT LIFT OFF LOX WAS FORCED INTO THE PU MANOMETER SENSE LINE COMMON TO THE ASIS BULKHEAD DIFFERENTIAL PRESSURE SWITCH. THIS LOX FLASHED ON CONTACT WITH THE MAIN SENSE LINE CAUSING A MOMENTARY DROP IN BULKHEAD DIFFERENTIAL PRESSURE WHICH ACTUATED THE PRESSURE SWITCH.						
SYSTEM EFFECT- IMPROPER DISCRETE SIGNAL - FALSE ABORT SIGNAL WAS SENT.						
VEHICLE EFFECT- NONE - ASIS WAS OPEN-LOOP.						
CORRECTIVE ACTION- A SEPARATE BOSS WAS INSTALLED AT STA. 937 AND A SENSING LINE INDEPENDENT OF THE PU SYSTEM INCORPORATING A HIGH RATE BUBBLER WAS USED TO SENSE PRESSURE FOR THE DELTA PRESSURE SWITCH.						
ASIS-A/B	AE80-0747/P4-402-00-79 ASIS B1 INJECTION PRESSURE SWITCH, CONNECTOR	FLIGHT	780 800919	14 ETR -2.7	YES NO	
FAILURE MODE-ERRATIC OPERATION. THE ASIS B1 INJECTION PRESSURE SWITCH ACTIVATED BETWEEN -2.7 AND -0.5 SECONDS AND INDICATED AN ERRATIC VOLTAGE OUTPUT FOR THE REMAINDER OF BOOSTER PHASE. INVESTIGATION REVEALED THE SOURCE OF THE TROUBLE TO BE MOISTURE IN THE SYSTEM CAUSED BY A STORM CONDITION WHICH EXISTED PRIOR TO LAUNCH.						
SYSTEM EFFECT-IMPROPER DISCRETE SIGNAL-A FALSE ABORT SIGNAL WAS SENT DUE TO A SHORTING CONDITION AT THE PLUG.						
VEHICLE EFFECT-NONE-ASIS WAS OPEN-LOOP.						
CORRECTIVE ACTION-NONE.						
ASIS-A/B	AE80-0747/P4-CO-01-79 ASIS HYDRAULIC PRESSURE SWITCH	COURTDOWN	780 800802	14	YES NO	
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. DURING THE FIRST FACT TEST THE ASIS NO. 2 HYDRAULIC PRESSURE SWITCH FAILED TO OPERATE WHEN HYDRAULIC PRESSURE WAS UP.						
SYSTEM EFFECT-LOSS OF REDUNDANCY.						

GENERAL DYNAMICS  
COMMAIR DIVISION

13 JUN 1966

DIFFICULTIES REVIEW-ASIS-AIRBORNE

SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DTP	SITE TIME DTP	PRE OTH	VEHICLE NAME VEHICLE PART NO
VEHICLE EFFECT-NONE. ASIS SYSTEM WAS FLOWN OPEN LOOP.						
CORRECTIVE ACTION-UNKNOWN.						
ASIS-A/S	90-24-067 SWITCH-PRESSURE	FAR	800 800000	ETR 507.7	YES NO	YES NO
FAILURE MODE-FAIL TO OPERATE. SWITCH WAS REJECTED BECAUSE THE ABORT CARTRIDGE WOULD NOT INDICATE A READY CONDITION WHEN THE SUSTAINER HYDRAULIC PRESSURE WAS INCREASED TO 2300 PSIG. FAILURE COULD NOT BE CONFIRMED. IT IS BELIEVED THAT FOREIGN MATERIAL BETWEEN THE WIPER AND THERMISTOR ELEMENT CAUSED THE FAILURE.						
CORRECTIVE ACTION-NOTIFIED VENDORS OF THE FAILURE. VENDOR TAKING ACTION TO INSURE THAT THE DUMPING FLUID IS THOROUGHLY CLEANED AND FILTERED PRIOR TO FILLING THE SWITCHES.						
ASIS-A.2	AE80-0538/P4-402-00-02 ASIS HYDRAULIC PRESSURE SWITCH	FLIGHT	800 800002	14 ETR 507.7	YES NO	YES NO
FAILURE MODE-FAILED TO OPERATE AT PRESCRIBED TIME. ASIS SUSTAINER HYDRAULIC HIGH PRESSURE WANDFOLD PRESSURE SWITCH DID NOT SEND ABORT SIGNAL AT 400. SWITCH ACTIVATED AT 425 SECONDS. PREZIZING OF SENSING LINE BELIEVED TO BE CAUSE. NO WINDING LINE CLAMPED WITH METAL-TO-METAL CLAMP TO SENSING LINE FOR MEASUREMENT PSIG, ENGINE LOW TANK PRESSURE.						
SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS. SWITCH DID NOT SEND ABORT INDICATION WHEN SYSTEM PRESSURE DECREASED BELOW 2000 PSIG.						
VEHICLE EFFECT-NONE. ASIS WAS OPEN LOOP.						
CORRECTIVE ACTION-INSULATE SENSING LINES AND METAL-TO-METAL CLAMPS ASSOCIATED WITH HYDRAULIC PRESSURE SWITCHES.						
ASIS-A/S	AE80-0538/P4-402-00-02 ASIS INTERMEDIATE BULKHEAD DIFFERENTIAL PRESSURE SWITCH	FLIGHT	800 800002	14 ETR FLU80.5	YES NO	YES NO
FAILURE MODE-PREATURE OPERATION. 5 LOADING AT LIFTOFF FORCED LOW INTO SENSING LINE. LOW CONTACT INTO CONTACT WITH W AND ACTUATED PRESSURE SWITCH.						
SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS. FALSE ABORT SIGNAL SENT.						
VEHICLE EFFECT-NONE. ASIS WAS OPEN-LOOP.						
CORRECTIVE ACTION-A SEPARATE BOSS WAS INTRODUCED AT STATION 907 AND A SENSING LINE INDEPENDENT OF THE PU SYSTEM INCORPORATING A HIGH RATE SUBMER WAS USED TO SENSE PRESSURE FOR THE DIFFERENTIAL PRESSURE SWITCH.						
ASIS-A/S	AE80-0538/P4-402-00-04 ASIS LOW TANK PRESSURE SWITCH VENT PORT C/S	FLIGHT	800 800000	12 ETR 50.5	YES NO	YES NO
FAILURE MODE-PREATURE OPERATION. THE BOSS-LOW TANK ASIS PRESSURE SENSING SWITCH INDICATED AN ABORT CONDITION. THIS SWITCH IS PRIMARILY USED TO SENSE LOW TANK PRESSURE AFTER DECO. THE INDICATED INCREASE IN PRESSURE WAS DUE TO A CAPPG IN VENT PORT. TRAPPED AIR AT NORMAL PRESSURE CAUSED AN INCREASE IN DELTA PRESSURE AS THE VEHICLE INCREASED IN ALTITUDE.						

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GENERAL DYNAMICS  
CONVAIR DIVISION

DIFFICULTIES REVIEW-ASIS-AIRBORNE

SYSTEM 340-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTHER	VENDOR NAME VENDOR PART NO
2.	<p>SYSTEM EFFECT-IMPROPER DISCRETE SIGNAL. THE INDICATED LOW TANK PRESSURE ROSE ABOVE THE ABORT LEVEL. ANALOG MEASUREMENT OF LOW TANK PRESSURE INDICATED NORMAL LEVEL. THE ASIS SYSTEM ISSUED AN ABORT SIGNAL.</p> <p>VEHICLE EFFECT-NONE. ASIS SYSTEM WAS FLOWN OPEN LOOP.</p> <p>CORRECTIVE ACTION-CAP TO BE REMOVED.</p>					
ASIS-A/B	AE60-0328P2-403-00-56 ASIS LOW TANK PRESSURE SWITCH VENT PORT CAP	FLIGHT	540 600360	12 17.3	YES NO	
<p>FAILURE MODE-PREATURE OPERATION. THE LOW TANK ASIS SENSE SWITCH INDICATED AN ABORT CONDITION. THE INDICATED INCREASE IN PRESSURE WAS DUE TO A CAPPED SENSE PORT. TRAPPED AIR AT NORMAL PRESSURE CAUSED AN INCREASE IN DELTA PRESSURE AS THE VEHICLE INCREASED IN ALTITUDE.</p> <p>SYSTEM EFFECT-IMPROPER DISCRETE SIGNAL. THE INDICATED LOW TANK PRESSURE ROSE ABOVE THE ABORT LEVEL. AS INDICATED BY THE ASIS SENSE SWITCH. ANALOG MEASUREMENT OF LOW TANK PRESSURE INDICATED NORMAL PRESSURE. THE ASIS ISSUED AN ABORT SIGNAL.</p> <p>VEHICLE EFFECT-NONE. ASIS SYSTEM WAS FLOWN OPEN LOOP.</p> <p>CORRECTIVE ACTION-CAP TO BE REMOVED.</p>						
ASIS-A/B	AE60-0328P2-403-00-56 ASIS SUSTAINER HYDRAULIC PRESSURE SENSE LINE.	FLIGHT	540 600360	12 207.	YES NO	
<p>FAILURE MODE-OUT OF TOLERANCE. SUSTAINER HYDRAULIC PRESSURE SENSE SWITCH INDICATED AN ABORT CONDITION. PRESSURE DROPPED BELOW THE ABORT LEVEL. SENSING LINES WERE ATTACHED TO SUSTAINER 6 &amp; LOW LINE AND OIL IN LINES FREE.</p> <p>SYSTEM EFFECT-IMPROPER DISCRETE SIGNAL. THE INDICATED HYDRAULIC PRESSURE DROPPED BELOW THE ABORT LEVEL. THE ASIS SYSTEM ISSUED AN ABORT SIGNAL.</p> <p>VEHICLE EFFECT-NONE. ASIS SYSTEM FLOWN OPEN LOOP.</p> <p>CORRECTIVE ACTION-NONE. PROBLEM WAS RESOLVED TO BE REGULAR TO THIS FLIGHT ONLY. THIS CONFIGURATION IS NOT THE SAME AS PLANNED FOR MERCURY VEHICLES.</p>						
ASIS-A/B	ME-60-24-30167 ABORT SENSING CONTROL UNIT	FAR	600360	ETR	YES NO	
<p>FAILURE MODE-OUT OF SPECIFICATION. THE TURNING RATE IN THE REDUNDANT ROLL CHANNEL REQUIRED TO CAUSE AN ABORT WAS FOUND TO BE MORE THAN 5 GCT BELOW NORMAL. DATA TAKEN IN TESTS INDICATED R1 6700 WAS INSTANTLY MODIFIED TO BOTH R1 &amp; R2 TO OPERATE DETECTORS.</p> <p>CORRECTIVE ACTION-OCT 9. 1962 PROCEDURE 27-01949 OR 1 REV. F WAS RELEASED. PARA. 4-2.31 CALLS FOR REVIEW OF PROCEDURE 25 IN THE FACTORY. THE 6700 TEST SET WAS MODIFIED BY CIC 92163 MAP 3364. THIS CHANGE REQUIRES INSTALLATION OF A LION</p>						

007489

007489

007410

GENERAL DYNAMICS  
COMAIR DIVISION

13 JUN 1966

DIFFICULTIES REVIEW-2418-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	BIF DATA SOURCE PART NUMBER	VEHICLE DATE BIF	SITE TIME BIF	PR1 OTN	VENDOR NAME VENDOR PART NO
7 ABOVE SPECIAL NUMBER 1 RELAY TO IMPROVE OPERATOR WHEN RELAY LAYOVERS.						

0002165

AUXILIARY POWER SOURCE  
AIRBORNE  
DIFFICULTIES REVIEW



13 JUN 1964

GENERAL DYNAMICS  
CORPUS DIVISION

DIFFICULTIES REVIEW-APS-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	BIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VEHICLE NAME VEHICLE PART NO
APS-A/B	FTA3044/P2-103-06-10	COUNTDOWN	18A 500389	12 2.3	NO NO	007529
FAILURE MODE-FAIL DURING OPERATION. 2.3 SECONDS AFTER SHOTS FIRE THE APS PLUMED OUT AS A RESULT OF FUEL DEPLETION FROM THE VERNIER START TANK.						
SYSTEM EFFECT-OPERATION TOO LOW. PERFORMANCE DROPPED OFF WHEN THE FUEL DEPLETED AND THE ENSUING DAMAGE REQUIRED REPAIR LACEDENT OF THE APS 66.						
VEHICLE EFFECT-COUNTDOWN ABORT.						
CORRECTIVE ACTION-UNKNOWN.						
APS-A/B	FTA2830/P2-101-00-10 POWER SUPPLY	PRF	18A 500389	12ETR	YES NO	007530
FAILURE MODE-FAIL DURING OPERATION. THE ACCESSORY POWER SUPPLY SYSTEM SHUT DOWN 4.67 SECONDS AFTER ITS PROPELLANT VALVES OPENED RESULTING IN PREMATURE TEST TERMINATION.						
SYSTEM EFFECT-OPERATION STOPS PREMATURELY.						
VEHICLE EFFECT-PREMATURE PROPULSION CUTOFF.						
CORRECTIVE ACTION-UNKNOWN.						
APS-A/B	ENG88/1A-108-87-14 APS SOX SUPPLY LINE BETWEEN COMPOSITE VALVE AND INJECTOR	CAPTIVE	14A 500222	1A 49.5	YES YES	007533
FAILURE MODE-LEAK-EXTERNAL. POST TEST HARDWARE INSPECTION REVEALED A RUPTURE IN THE APS SOX SUPPLY LINE BETWEEN THE COMPOSITE VALVE AND THE INJECTOR.						
SYSTEM EFFECT-LOW TEMPERATURE ENVIRONMENT. B1 PRESSURE TRANSDUCERS WERE ADVERSELY AFFECTED BY EXTREMELY COLD TEMPERATURES AS A RESULT OF BEING SPRAYED BY LEAKING LOX.						
VEHICLE EFFECT-PREMATURE PROPULSION CUTOFF. BOOSTER AND VERNIER ENGINE OPERATION WAS TERMINATED PREMATURELY AT 49.5 SECONDS BY OBSERVER CUTOFF WHEN VISUAL OBSERVATION OF CHARTS INDICATED AN EXCESSIVE DROP IN B1 PRESSURE. THE LOX LEAK ALSO FROZE THE YAW ACTUATOR AND FEEDBACK TRANSDUCER CAUSING THE BE CHAMBER TO GO HARD OVER IN YAW AT ABOUT 31 SECONDS.						
CORRECTIVE ACTION-INVESTIGATION REVEALED THAT SOX LINE RUPTURES WERE CAUSED BY CONTAMINATED LINES AND A NEW LINE CLEANING PROCEDURE WAS INITIATED TO ELIMINATE FURTHER FAILURES.						
APS-A/B	2C-7-099/P4-102-00-13	FLIGHT	13A 500207	14 0	NO NO	
FAILURE MODE-PREMATURE OPERATION. APS CUTOFF AT LIFTOFF WHEN UNBILICAL P1007 EJECTED 0.03 SECONDS PRIOR TO P1001. THIS REMOVED ALL 28 VOLT DC POWER AT BUS 101, THE POINT AT WHICH THE TANKS PRESSURIZATION SIGNAL IS OBTAINED. THIS IS A NORMAL SEQUENCE WHEN TANK PRESSURIZATION SIGNAL DROPS OUT.						
SYSTEM EFFECT-OPERATION STOP PREMATURELY.						

13 JUN 1968

GENERAL DYNAMICS  
CONVAIR DIVISION

## DIFFICULTIES REVIEW-APS-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PR1 OTH	VENDOR NAME VENDOR PART NO	
							893267
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-NONE.							
APS-A/B	EM800/1A-105-A4-14	CAPTIVE	500130	1A	YES NO		893637
FAILURE MODE-OUT OF SPECIFICATION. INDICATED DC VOLTAGES WERE APPROXIMATELY 12 PERCENT BELOW SPECIFICATIONS.							
SYSTEM EFFECT-OPERATION TOO LOW.							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-UNKNOWN.							
APS-A/B	EM800/1A-105-A4-14 HYDRAULIC ACTUATOR, PINTLE	CAPTIVE	14A 500130	1A	YES NO		894438
FAILURE MODE-OUT OF EXPECTED TEST VALUE. THE HOT GAS PINTLE WAS IN A NEAR CLOSED POSITION AT THE START OF THE APS U SET. THE NORMAL STARTING POSITION FOR THE PINTLE IS IN THE FULL OPEN POSITION.							
SYSTEM EFFECT-OPERATION TOO HIGH. THIS CONDITION RESULTED IN A MORE RAPID THAN USUAL BUILDUP OF THE COMBUSTION CHAM BER PRESSURE.							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-UNKNOWN.							
APS-A/B	EM800/1A-104-A3-14 HYDRAULIC ACTUATOR, PINTLE	CAPTIVE	14A 500130	1A	YES NO		894641
FAILURE MODE-OUT OF EXPECTED TEST VALUE. THE HOT GAS PINTLE WAS IN A NEAR CLOSED POSITION AT THE START OF THE APS U SET. THE NORMAL STARTING POSITION FOR THE PINTLE IS IN THE FULL OPEN POSITION.							
SYSTEM EFFECT-OPERATION TOO HIGH. THIS CONDITION RESULTED IN A MORE RAPID THAN USUAL BUILDUP OF THE COMBUSTION CHAM BER PRESSURE.							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-UNKNOWN.							
APS-A/B	EM800/1A-104-A3-14 ALTERNATOR, POWER SUPPLY	CAPTIVE	14A 500130	1A	YES NO		
FAILURE MODE-OUT OF TOLERANCE. AC VOLTAGE WAS SLIGHTLY 14.							
SYSTEM EFFECT-OPERATION TOO LOW.							
VEHICLE EFFECT-NONE.							

15 JUN 1968

GENERAL DYNAMICS  
CORVAIN DIVISION

DIFFICULTIES REVIEW-APS-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF TIME DIF	SITE DIF TIME DIF	YES DIF TIME DIF	VEHICLE NAME VEHICLE PART NO
CORRECTIVE ACTION-UNKNOWN.						
APS-A/W	EM600/1A-104-13-14 PUMP, APS HYDRAULIC	CAPTIVE	1A 300130	1A	YES NO	
FAILURE MODE-OUT OF TOLERANCE. HYDRAULIC PUMP DISCHARGE PRESSURE WAS SLIGHTLY HIGH.						
SYSTEM EFFECT-OPERATION TOO HIGH.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-UNKNOWN.						
APS-A/W	EM600/1A-104-13-14	CAPTIVE	1A 300130	1A	YES NO	
FAILURE MODE-OUT OF TOLERANCE. INDICATED DC VOLTAGES WERE APPROXIMATELY 12 PERCENT BELOW SPECIFICATION.						
SYSTEM EFFECT-OPERATION TOO LOW.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-UNKNOWN.						

**GUIDANCE SYSTEM  
AIRBORNE  
DIFFICULTIES REVIEW**

# DIFFICULTIES REVIEW GUIDANCE AIRBORNE

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**0010.**

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**Beacon**

**0004.**

**Beacon Pulse**

**0003, 0004, 0005.**

**-Connector Electr**

**-0003, 0042, 0075.**

**Magetron**

**0003, 0005, 0012, 0024, 0026, 0040, 0041.**

**Pulse Beacon**

**0013, 0023, 0024, 0025, 0040, 0041, 0075,  
0076.**

## **IV. ANTENNA & WAVEGUIDE**

**Antenna**

**0018, 0033, 0044, 0079.**

**Waveguide**

**0033, 0044, 0079.**

## **V. PLATFORM & CONTROL**

**Accelerometer**

**0048, 0051, 0054, 0055, 0057.**

**Amplifier**

**0049, 0058.**

**Collimator**

**0047, 0049, 0052.**

**Diode**

**0047.**

**Gear**

**0058.**

**Gyro Displacement**

**0056.**

**Heater**

**0049.**

**Motor**

**0049.**

**Motor, Servo**

**0055.**

**Platform & Control**

**0046, 0047.**

**Platform**

**0049, 0050, 0051, 0052, 0053, 0054, 0056,  
0057.**

## V. PLATFORM & CONTROL (Continued)

Power Supply	0058.
Relay	0053.
Synchronizing Unit	0058.

## VI. COMPUTER

Amplifier	0064.
Chassis	0063.
Circuit Board	0060, 0061, 0063.
Computer	0059, 0060, 0061, 0062, 0063, 0065, 0066, 0067, 0068, 0069, 0070, 0072, 0080.
Converter Signal	0068, 0071, 0072.
Counter	0067.
Diode	0061, 0062, 0064, 0067.
Harness/Wiring/Circuits	0062, 0071.
Reset Unit	0059.
Transistor	0064, 0065, 0068, 0070.

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GENERAL DYNAMICS  
COMPAIR DIVISION

DIFFICULTIES REVIEW-AUTOMANCE SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	SIP DATA SOURCE PART NUMBER	VEHICLE DATE SIP	SITE TIME OF OTM	YES GENERAL ELECTRIC	NO IC
GE MOD 1B-A/B RECODER	FTA4311/PI-001-00-13 RECODER	FWF	130 501222	11/ETR -000	YES GENERAL ELECTRIC	NO IC
<p>FAILURE MODE-OUT OF TOLERANCE. DURING THE 7-10 MINUTE DUTY BOMB MESSAGE CLEARS WERE MISSING.</p> <p>SYSTEM EFFECT-ERRATIC OPERATION. SYSTEM OPERATION WAS UNSATISFACTORY.</p> <p>VEHICLE EFFECT-NONE.</p> <p>CORRECTIVE ACTION-UNKNOWN.</p>						
GE MOD 1B-A/B RECODER	FTA4311/PI-004-00-09	COUNTDOWN	30 501112	11/ETR -40	YES GENERAL ELECTRIC	NO IC
<p>FAILURE MODE-PREATURE OPERATION. PITCH SIGNAL RECEIVED BY AUTOMANCE PANEL OPERATOR. NO SIGNAL SHOULD BE PRESENT. PITCH SIGNAL CAUSED BY FAULTY OUTPUT OF THE TRACK TRANSMITTER DUE TO MISSING OF INCOMPLETE MESSAGE STRUCTURE TO DECODE.</p> <p>SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. NEGATIVE 50 PERCENT PITCH STEERING. SIGNAL RECEIVED.</p> <p>VEHICLE EFFECT-COUNTDOWN DELAYED. 99 MINUTES HOLD.</p> <p>CORRECTIVE ACTION-UNKNOWN.</p>						
GE MOD 1B-A/B RECODER	FTA4311/PI-001-00-09 RECODER	FWF	30 501014	11/ETR NO IC	YES GENERAL ELECTRIC	NO IC
<p>FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. DURING TEST 6 IN THE LOOP TEST, THE YAW STEERING COMMAND FROM THE AUTOMANCE GROUND SITE WAS NOT SENT DUE TO OPERATOR ERROR. THIS MADE TEST 6 NO-NO.</p> <p>SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS. SIGNALS FROM GROUND AUTOMANCE WERE IMPROPER.</p> <p>VEHICLE EFFECT-NONE.</p> <p>CORRECTIVE ACTION-VERIFY SATISFACTORY OPERATION.</p>						
GE MOD 1B-A/B RECODER	FTA4311/PI-001-00-09 RECODER	FWF	30 501014	11/ETR NO IC	YES GENERAL ELECTRIC	NO IC
<p>FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. DURING FWF RECODER COULD NOT DELIVER A VEHICLE YAW DISCRETE SIGNAL TO THE AUTOPILOT PROGRAMMER.</p> <p>SYSTEM EFFECT-IMPROPER DISCRETE SIGNAL. RECODER DID NOT PROVIDE PROPER SIGNAL.</p> <p>VEHICLE EFFECT-NONE.</p>						



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GENERAL INRCS  
COMBAT Division

## DIFFICULTIES REVIEW-GUIDANCE SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP OWN	SITE TIME DIP OWN	VEHICLE NAME VEHICLE PART NO	
CORRECTIVE ACTION-RECORDED REPLACED AFTER PMF.						
GE MOD 12-A/B RECORDER	PTA3044/PS-103-00-10 RECORDER, ADDRESS PIN	COURTROOM	16A NONE	12/ETB -18000	NO GENERAL ELECTR NO IC	001700 007403
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. A PIN WAS PLUGGED OUT OF UNUSUAL 1984 RESULTING IN AN OPEN CIRCUIT IN THE PITCH ANALOG RETURN TO THE GYE TEST ENVIRONMENT.						
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. THE PITCH ANALOG SIGNAL WAS INCORRECT AS MONITORED AT THE BLOCK HOUSE.						
VEHICLE EFFECT-COURTROOM DELAYED. 80 MINUTES HOLD.						
CORRECTIVE ACTION-RECORDED REPLACED. NO CHANGE. REINSTALLED ORIGINAL. OPEN CONNECTION IN PANEL DETECTED AND CORRECTED.						
3.						
GUIDANCE-GE MOD 11-A/B RATE BEACON	DA80/AS-440-04-12 RATE BEACON	COMPOSITE-PRO/DPL	120 NONE	A -2100	NO GENERAL ELECTR NO IC	008019
FAILURE MODE-ERRATIC OPERATION-POST TEST INVESTIGATION REVEALED THAT RATE BEACON HAD BEEN DAMAGED BY A HIGH GROUND AC VOLTAGE THAT WAS MANUALLY SET. HIGH VOLTAGE SETTING ATTRIBUTED TO A FAULTY AC VOLT METER.						
SYSTEM EFFECT-ERRATIC OPERATION RESULTED IN SQUAD GUIDANCE LOSING LOCK.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-RATE BEACON WAS REPLACED.						
GUIDANCE-GE MOD 11-A/B RATE BEACON	EN130/TA-401-00-10 RATE BEACON	PMF	100 NONE	14/ETB -2100	YES GENERAL ELECTR NO IC	008543
FAILURE MODE-FAIL DURING OPERATION. THE GUIDANCE RATE BEACON LOST LOCK DURING LOOP CHECK FOR UNDETERMINED REASON.						
SYSTEM EFFECT-OPERATION STOPS PREMATURELY. LOOP CHECK WAS STOPPED WHEN THE RATE BEACON LOST LOCK. THE CHECK WAS NOT BE IMMEDIATELY WITH SATISFACTORY RESULTS.						
VEHICLE EFFECT-COURTROOM DELAYED. THE COURTROOM WAS DELAYED 13 MINUTES WHILE THE LOOP CHECK WAS RUN.						
CORRECTIVE ACTION-NONE.						
GUIDANCE-GE MOD 11-A/B RATE BEACON	2C-7-004/PS-003-00-03 RATE BEACON, AMPLIFIER	FLIGHT	80 NONE	11/ETB 74.3	YES GENERAL ELECTR NO IC	008543
FAILURE MODE-FAILED TO OPERATE AT PRESCRIBED TIME-RATE SIGNALS DISAPPEARED PREMATURELY AND ALL RATE FUNCTIONS LOST LOCK. RATE BEACON NOT POWER RECOVERED TO 2000 AT 74 SEC AND AT 100 SECS RECOVERED OPERATION AT REDUCED OUTPUT APPROX 25 DBM ; PROVIDING VALID RATE DATA TO 877 SECS. THE FAILURE WAS ACCOMPANIED BY LARGE DEVIATION IN HEISENBERG FREQUENCY						

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GENERAL DYNAMICS  
COMPUTER DIVISION

## DIFFICULTIES REVIEW-GUIDANCE SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PN3 DIP OTH	VENOR NAME VENOR PART NO	
	V AND VOLTAGE. TROUBLE BELIEVED TO BE IN THE TRANSMITTER.						090004
	SYSTEM EFFECT-ERRATIC OPERATION-CAUSED LOSS OF PULSE BEACON LOCK FROM 130 TO 107 SECONDS AND A TEMPORARY LOSS AT 74 SECONDS.						
	VEHICLE EFFECT-NONE. GUIDANCE STEERING AFTER 100 SECONDS WAS SUCCESSFUL AND BEACON WAS ACCOMPLISHED.						
	CORRECTIVE ACTION-UNKNOWN. PROBLEM BELIEVED TO BE IN ONE OF AMPLIFIER CIRCUITS IN TRANSMITTER SECTIONS OF RATE BEAC OR ADDITIONAL INSTRUMENTATION TO BE ADDED FOR LATER FLIGHTS (AS NECESSARILY).						
	GUIDANCE-GE MOD 11-A/B PULSE BEACON	DN130/P4-008-00-10 PULSE BEACON, MAGNETRON	PNF	100 090000	1A/ETR YES NO IC	YES GENERAL ELECTRIC	000300
	FAILURE MODE-ERRATIC OPERATION. PULSE BEACON MAGNETRON CURRENT EXHIBITED ABRUPT CHANGES DURING TEST. NO CAUSE DETECTED.						
	SYSTEM EFFECT-ERRATIC OPERATION. PULSE BEACON SYSTEM AND DECODER OPERATED ERRATICALLY DURING THE TEST. THE PROBLEM MAY HAVE BEEN ASSOCIATED WITH RATE AND PULSE BEACON ARC LEVEL CHANNELS WHICH ALSO OCCURRED DURING THE TEST.						
	VEHICLE EFFECT-NONE.						
	CORRECTIVE ACTION-NOT INDICATED.						
	GUIDANCE-GE MOD 11-A/B PULSE BEACON	DN130/P4-008-00-10 PULSE BEACON	PNF	100 090000	1A/ETR 0	YES GENERAL ELECTRIC NO IC	000197
	FAILURE MODE-ERRATIC OPERATION. PULSE BEACON ARC LEVEL DROPPED INTERMITTENTLY DURING TEST.						
	SYSTEM EFFECT-ERRATIC OPERATION.						
	VEHICLE EFFECT-NONE.						
	CORRECTIVE ACTION-NOT INDICATED.						
	GUIDANCE-GE MOD 11-A/B PULSE BEACON	DN130/P4-008-00-10 PULSE BEACON, ELECTRICAL CONNECTOR	COMMON	100 090000	1A/ETR -7000	YES GENERAL ELECTRIC NO IC	000003
	FAILURE MODE-ERRATIC OPERATION. BROAD GUIDANCE STATION HAD DIFFICULTY INTERFERING THE PULSE BEACON DUE TO A LOSS OF PNE-TYPE FITTING AT THE BEACON.						
	SYSTEM EFFECT-ERRATIC OPERATION.						
	VEHICLE EFFECT-COMMON RELATES. GE IDENTIFIED MOLD.						
	CORRECTIVE ACTION-NAMES MEMORS OF FITTING.						

10 JUN 1969

GENERAL  
COMBAT DIVISION

## DIFFICULTIES REVIEW-GUIDANCE SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	SIP DATA SOURCE PAST NUMBER	VEHICLE DATE SIP	SITE TIME SIP	PRE YES OFF	VEHICLE NAME NUMBER PAST NO
GUIDANCE-GE MOD 11-A/B PULSE BEACON	PTA4311/PI-004-00-10 BEACON	CORNTOWN	100 501210	11/ETR -010	YES NO IC	000000
FAILURE MODE-FAIL DURING OPERATION. GUIDANCE LOST LOCK AT SWITCHOVER TO INTERNAL MISSILE AC POWER.						
SYSTEM EFFECT-ERRATIC OPERATION.						
VEHICLE EFFECT-CORNTOWN DELAYED. ONE MINUTE HOLD.						
CORRECTIVE ACTION-NONE.						
GUIDANCE-GE MOD 11-A/B PULSE BEACON	PTA4413/PI-002-00-10 PULSE BEACON	PIF	100 501210	11/ETR -0000	YES NO IC	000000
FAILURE MODE-ERRATIC OPERATION. LOW SIGNAL LEVEL AND INTERMITTENT OPERATION.						
SYSTEM EFFECT-ERRATIC OPERATION.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-NONE REPORTED. PROBLEM CLEARED ITSELF.						
GUIDANCE-GE MOD 11-A/B PULSE BEACON	PTA4402/PI-000-00-00 PULSE BEACON	CORNTOWN	00 500910	11/ETR -0000	NO NO IC	001410
FAILURE MODE-ERRATIC OPERATION. JITTER ON GUIDANCE RANGE DATA AND PITCH AND YAW RATE DATA, AND RAS LEVEL ON JITTER D ATA.						
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. TEST 0 AND 9 OF LOOP TEST UNSATISFACTORY DUE TO JITTER ON DATA.						
VEHICLE EFFECT-CORNTOWN DELAYED. 04 MINUTE HOLD.						
CORRECTIVE ACTION-MERLIN LOOP TEST TO INSURE PROPER OPERATION. SECOND LOOP TEST ALSO NO-20. THIRD LOOP TEST WAS INTE RUPTED. FOURTH LOOP TEST WAS RUN WITH SYSTEM 2 AND WAS SATISFACTORY.						
GUIDANCE-GE MOD 11-A/B PULSE BEACON	PTA4402/PI-001-00-00 PULSE BEACON	PIF	00 500910	11/ETR -0000	YES NO IC	001410
FAILURE MODE-ERRATIC OPERATION. THE GUIDANCE PULSE BEACON ACC LEVEL AND MAGNETRON CURRENT LEVEL VARIED DURING MERLIN E OPERATION, AND DROPPED TO ZERO ON OCCASIONS.						
SYSTEM EFFECT-ERRATIC OPERATION.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-REPLACED PULSE BEACON AFTER TEST. THIS CASE STUDY WAS KNOWN TO BE MINIMAL PRIOR TO TEST AND WAS TO						

10 JUN 1967

GENERAL  
COMBAT DIVISION

## DIFFICULTIES REVIEW-ORANGE SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PR1 OTH	VEHICLE NAME VEHICLE PART NO
BE REPLACED AFTER TEST.						
ORANGE-GE MOD 11-L/S PULSE BEACON	FT44305/P4-800-81-6 PULSE BEACON	COMPOSITE-8 FACT	80	13/ETR	YES	GENERAL ELECTRIC NO IC
FAILURE MODE-FAIL DURING OPERATION. THE ORANGE SYSTEM PULSE BEACON ARC VOLTAGE REMAINED AT A CONSTANT LEVEL DURING THE TEST AND DID NOT REFLECT CHANGES IN THE INPUT SIGNAL LEVELS.						
SYSTEM EFFECT-OPERATION DOES NOT START.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-REPLACED PULSE BEACON, DATE BEACON, AND BEACON.						
ORANGE-GE MOD 11-L/S PULSE BEACON	FT44141/P5-804-80-4 PULSE BEACON	COUNTDOWN	40	13/ETR	NO	GENERAL ELECTRIC NO IC
FAILURE MODE-OUT OF TOLERANCE. GE GROUND GUIDANCE SYSTEM NO-2 NO-60.						
SYSTEM EFFECT-IMPROPER HULLS SIGNALS. LOW ARC AND WAITING FREQUENCY AT THE PULSE BEACON.						
VEHICLE EFFECT-COUNTDOWN DELAYED. HOLD AT 1-40 FOR 15 MINUTES FOR GE GROUND GUIDANCE AND CORRELATE RES. CHECK.						
CORRECTIVE ACTION-FURTHER TESTING. GE DECIDED TO DO WITHOUT SYSTEM NO-2. SYSTEM 2 REPORTED 60 BUBBLE HOLD AT 1-34.						
ORANGE-GE MOD 11-L/S PULSE BEACON	FT44142/P5-808-80-4 PULSE BEACON	COUNTDOWN	40	13/ETR	YES	GENERAL ELECTRIC NO IC
FAILURE MODE-FAIL DURING OPERATION. GE PULSE BEACON BECAME NO-60.						
SYSTEM EFFECT-OPERATION STOPS PROMPTLY.						
VEHICLE EFFECT-COUNTDOWN ABORTED AND RE-SCHEDULED. HOLD WAS CALLED AT 1-40 AND COUNTDOWN WAS RECYCLED TO 1-70 AND IN CLOSING, TIME REQUIREMENTS FOR PULSE BEACON CHANGE WOULD HAVE EXCEEDED TEST TIME BEYOND NORMAL LIMITS AND TEST WAS ABORTED.						
CORRECTIVE ACTION-PULSE BEACON REPLACED.						
ORANGE-GE MOD 11-L/S PULSE BEACON	2M-7-86-1-1/P5-800-81-6 PULSE BEACON, INHIBITION	COMPOSITE-FACTORY	80	FACTORY	NO	GENERAL ELECTRIC NO IC
FAILURE MODE-ERRATIC OPERATION-FLICKERS WERE EVIDENT ON THE RECORDED TRACE OF THE PULSE BEACON INHIBITION CURRENT. 9 VDC POWER SUPPLY IS BE BELIEVED TO BE THE SOURCE OF TRANSIENTS. POST COMPARATIVE TESTING COULD NOT DUPLICATE INHIBITION.						

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GENERAL DYNAMICS  
COMPAIR DIVISION

DIFFICULTIES REVIEW-GUIDANCE SYSTEM-AIRBORNE

SYSTEM 248-37578	TEST/REPORT NUMBER FAILED COMPONENT NAME	SIP DATA SOURCE PART NUMBER	VEHICLE DATE SIP	SITE TIME SIP	PRE SIP ORN	VENDOR NAME VENDOR PART NO
SYSTEM EFFECT-ERRATIC OPERATION.						
VEHICLE EFFECT-COMPOSITE ADJUSTED, COMPOSITE TESTSET WAS PERFORMED.						
CORRECTIVE ACTION-NUMEROUS TESTSET WERE PERFORMED, BUT THE PROBLEM COULD NOT BE ELIMINATED. IT WAS THOUGHT THAT THE 50 WDC POWER SUPPLY (AGE) TRANSIENT WHICH OCCURS DURING TAPE ADVANCES, CAUSED THE ACCELERATION RESISTOR (AGE) TO SEND EXCESSIVE MESSAGES.						
GUIDANCE-RE MOD 11-A/B DECODE	AERB-0008/PC-400-01-007 DECODE	COMPOSITE-FACTORY	979 081105	FACTORY	YES NO	GENERAL ELECTRIC NO IC
FAILURE MODE-OUT OF TOLERANCE - DVM READOUT OF THE RELATIVE ONE-HALF PITCH STEERING SIGNAL EXCEEDED THE UPPER LIMIT BY 0.04 VOL. THE DECODER WAS ORIGINALLY BEEN ADJUSTED UTILIZING A 10K BURNY LOAD IN LIEU OF THE A/P STRO CAMISTER L OAR.						
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.						
VEHICLE EFFECT-COMPOSITE RE-SCHEDULED, PARTIAL COMPOSITE TESTSET WAS REMOVED.						
CORRECTIVE ACTION-THE DECODER STEERING SIGNAL OUTPUTS WERE RE-ADJUSTED.						
GUIDANCE-RE MOD 11-A/B DECODE	FTAA578/791-008-00-11 DECODE	COUNTDOWN	118 000004	11/ETR -0000	YES NO	GENERAL ELECTRIC NO IC
FAILURE MODE-OUT OF TOLERANCE. RE GUIDANCE DECODER WAS NOT FUNCTIONING PROPERLY. RE GUIDANCE DECODER WAS GIVING A FULL SCALE ANALOG INDICATION WHEN SINGLE DIGITS WERE SENT TO THE DECODER.						
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.						
VEHICLE EFFECT-COUNTDOWN DELAYED. 45 MINUTES HOLD TIME.						
CORRECTIVE ACTION-CHANGE GUIDANCE DECODER.						
GUIDANCE-RE MOD 11-A/B DECODE	FTAA577/794-008-00-13 DECODE	COUNTDOWN	130 001006	11/ETR -0000	NO NO	GENERAL ELECTRIC NO IC
FAILURE MODE-OUT OF TOLERANCE. GUIDANCE SIGNALS INCORRECT DUE TO OPERATIONAL ERROR AT GROUND GUIDANCE STATION. BANK C RATE WAS NOT ON.						
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. OPERATION DURING THE LOOP TEST WAS INCORRECT.						
VEHICLE EFFECT-COUNTDOWN DELAYED. 12 MINUTES HOLD.						
CORRECTIVE ACTION-LOOP TEST BEGAN WITH BANK C RATE ON.						

10 JUN 1966

GENERAL WANCE  
COMPLER /1870H

## DIFFICULTIES BETWEEN-GUIDANCE SYSTEM-AIRBORNE

SYSTEM SAG-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	SIF DATA SOURCE PLAY NUMBER	VEHICLE DATE SIF	SITE TIME SIF	PRE OWN	NO VEHICLE	NAME PART NO
GUIDANCE-GE MOD 11-A/S RECORDED	28-7-63/77C-ROD-02-18 RECORDED	COMPOSITE-FACTORY	108 501009	FACTORY	YES NO	GENERAL ELECTRIC NO IC	002014
FAILURE MODE-FAIL DURING OPERATION-THE PITCH AND YAW OUTPUTS WERE OPPOSITE IN PHASE TO THAT EXPECTED. CAUSE IS UNDER OWN.							
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS-GUIDANCE SYSTEM TRANSMITTED SIGNALS OF WRONG POLARITY TO AUTOPILOT SYSTEM.							
VEHICLE EFFECT-COMPOSITE DELAYED DUE TO INVESTIGATIVE TESTING.							
CORRECTIVE ACTION-NONE-PROBLEM COULD NOT BE DUPLICATED. NEXT COMPOSITE TEST WAS SATISFACTORY.							
GUIDANCE-GE MOD 11-A/S RECORDED	28-7-63/77C-ROD-02-18 RECORDED	COMPOSITE-FACTORY	108 501009	FACTORY	NO NO	GENERAL ELECTRIC NO IC	002014
FAILURE MODE-FAIL DURING OPERATION-THE SUSTAINED ENGINE DATA INDICATED EXCESSIVE OUTPUTS IN PITCH AND YAW UPON ACT IVATION FROM THE GUIDANCE SYSTEM. CAUSE UNKNOWN. HOWEVER, ON FUTURE REEVALS IT WAS DISCOVERED THAT THE GUIDANCE SYS TEM GAGE ENGAGEMENT COULD NOT SEND PITCH AND YAW SIGNALS AT THE SAME TIME DISCRETELY ARE SENT OR WHEN REPROGRAMMING THE REHISTERS.							
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.							
VEHICLE EFFECT-COMPOSITE WAS DELAYED TO ACCOMPLISH INVESTIGATIVE TESTS.							
CORRECTIVE ACTION-UNKNOWN. A PROPOSAL WAS SUBMITTED TO CHANGE OR MODIFY THE TEST ENVIRONMENT.							
GUIDANCE-GE MOD 11-A/S RECORDED	PTA4202/73-001-00-08 RECORDED	FWF	08 500930	18/ETR -5048	NO NO	GENERAL ELECTRIC NO IC	001232
FAILURE MODE-ERRATIC OPERATION. DURING THE LOOP TEST, TEST NO. 9, A TRACE YAW CHECK, WAS CONSIDERED NO-GO DUE TO DR OPUTS IN THE YAW COMMANDS. THIS PROBLEM WAS ORIGINATING AT THE GUIDANCE GROUND STATION.							
SYSTEM EFFECT-ERRATIC OPERATION. DROPOUTS IN THE YAW COMMANDS DURING THE LOOP TEST.							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-INVESTIGATE GROUND STATION PROBLEMS.							
GUIDANCE-GE MOD 11-A/S RECORDED	PTA4104/71-000-00-08 RECORDED	FWF	08 500909	11/ETR	NO NO	GENERAL ELECTRIC NO IC	001232
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. THE GUIDANCE PRE-ARM DISCRETE SIGNAL COULD NOT BE SEEN WHEN GENERA TED BECAUSE THE PRE-ARM CIRCUITRY HAD ALREADY BEEN ACTIVATED BY AN IMPROPERLY ADJUSTED TIME DELAY RELAY IN THE TEST ENVIRONMENT.							
SYSTEM EFFECT-IMPROPER DISCRETE SIGNAL.							

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GENERAL - MANICS  
CONVAIR DIVISION

16 JUN 1964

DIFFICULTIES REVIEW-AVOIDANCE SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-VERIFY PROPER SYSTEM OPERATION.						
GUIDANCE-GE MOD 11-A/B DECODER	ZN-7-23A/PC-100-26-16 DECODER	COMPOSITE-FACTORY	12A 590000	FACTORY	YES NO	GENERAL ELECTRIC NO IC
FAILURE MODE-ERRATIC OPERATION-RECORDS OUTPUTS TO TELEMETRY FLUCTUATED DURING THE TEST DUE TO INTERMITTENT OPERATION OF THE DECODER.						
SYSTEM EFFECT-ERRATIC OPERATION.						
VEHICLE EFFECT-NONE. NO FURTHER TESTING WAS PERFORMED AT THIS FACILITY.						
CORRECTIVE ACTION-THE DECODER WAS REPLACED.						
GUIDANCE-GE MOD 11-A/B DECODER	ZN-7-440/PC-100-16-12 DECODER	COMPOSITE-FACTORY	12A 570919	FACTORY	YES NO	GENERAL ELECTRIC NO IC
FAILURE MODE-FAIL DURING OPERATION. DISCRETE DIGIT NO. 9 INDICATED A-1- POSITION PRIOR TO 112 SECONDS, WHEN A-0 POS ITION WAS EXPECTED.						
SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS.						
VEHICLE EFFECT-COMPOSITE MICRO-CHAINED. SYSTEM AND COMPOSITE RETESTS WERE REQUIRED.						
CORRECTIVE ACTION-THE DECODER WAS REPLACED.						
GUIDANCE-GE MOD 11-B-A/B	ZC-7-218/PC-300-00-04	FLIGHT	4C 590127	18/ETR 0	NO NO	GENERAL ELECTRIC GENERAL ELECTRIC
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME-THE AVOIDANCE TRACK SYSTEM WAS UNABLE TO ESTABLISH CONTINUOUS MONOPULS E LOCK FROM LIFT OFF. ALSO, AT NO SECOND, THE CRITICAL TRANSMIT RECEIVE TUBE IN THE TRACK SYSTEM FAILED, THE SYSTEM WAS DISABLED AFTER 80 SECONDS. AS A CONSEQUENCE, THE PLANNED AVOIDANCE SYSTEM FUNCTIONS WERE NOT PERFORMED.						
SYSTEM EFFECT-OPERATION DOES NOT START-DUE TO THE LOSS OF TRACK SYSTEM LOCK. NO COMMANDS WERE GENERATED OR TRANSMIT TED BY THE GROUND SYSTEM THEREFORE, THE AVOIDANCE SYSTEM DID NOT PERFORM TO PLANNED FUNCTIONS.						
VEHICLE EFFECT-COMMANDS NOT RECEIVED OR SENT. BOOSTER CUTOFF AND STAGING WAS NOT ACCOMPLISHED BY AVOIDANCE DISCRETE AS PLANNED. NO COMMANDS WERE RECEIVED OR SENT BY AVOIDANCE, AS A RESULT, THE RE-ENTRY VEHICLE WAS NOT RESEPARATED.						
CORRECTIVE ACTION-UNKNOWN.						

18 JUN 1946

## DIFFICULTIES REVIEW-OUTRANCE SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VEHICLE PART NO
OUTRANCE-GE MOD 1118-A/B RATE BEACON	AERO-0789/FC-4CO-01-081 BEACON, CONNECTOR PIN	COMPOSITE-FACTORY	910 001809	FACTORY	YES NO	GENERAL ELECTRIC NO IC
<p>FAILURE MODE-ERRATIC OPERATION. TELEMETRY MEASUREMENT 4279V, RATE BEACON AGC NO. 1, HAD AN ERRATIC OUTPUT DURING THE TEST. THIS WAS CAUSED BY A BROKEN WIRE IN PIN 8 OF PLUG 472 AT THE RATE BEACON.</p> <p>SYSTEM EFFECT-NONE.</p> <p>VEHICLE EFFECT-COMPOSITE RESCHEDULED. POST-COMPOSITE TESTING WAS REQUIRED.</p> <p>CORRECTIVE ACTION-REMAINED PLUG.</p>						
OUTRANCE-GE MOD 1118-A/B RATE BEACON	AERO-0558/FC-4CO-08-078 RATE BEACON	COMPOSITE-FACTORY	720 000616	FACTORY	NO NO	GENERAL ELECTRIC NO IC
<p>FAILURE MODE-OUT OF TOLERANCE. THE RATE BEACON POWER OF 0.900 WATTS READ DURING THE CONFIDENCE CHECK WAS MORE THAN DOUBLE THAT RECORDED DURING THE SYSTEM TEST.</p> <p>SYSTEM EFFECT-OPERATION TOO HIGH.</p> <p>VEHICLE EFFECT-COMPOSITE RE-SCHEDULED.</p> <p>CORRECTIVE ACTION-THE RF LINES WERE RECALIBRATED AND THE POWER METER CHECKED. SUBSEQUENT READINGS RESULTED IN VALUES OF 0.750 TO 0.790 WATTS. NO FURTHER ACTION WAS TAKEN BASED ON THE ACCEPTANCE OF THIS POWER LEVEL BY GENERAL ELECTRIC ENGINEERING PERSONNEL.</p>						
OUTRANCE-GE MOD 1118-A/B RATE BEACON	AERO-0448/FC-4CO-01-02 RATE BEACON	COMPOSITE-FACTORY	320 000611	FACTORY	NO NO	GENERAL ELECTRIC NO IC
<p>FAILURE MODE-OUT OF TOLERANCE. RATE BEACON POWER, CHANNEL 21 OF MIDWESTERN RECORDER NO.1, REMAINED AT THE CALIBRATE D MINIMUM LEVEL THROUGHOUT THE TEST. A NOMINAL OUTPUT LEVEL CALIBRATION HAD BEEN PERFORMED INSTEAD OF A MINIMUM LEVEL.</p> <p>SYSTEM EFFECT-OPERATION TOO LOW.</p> <p>VEHICLE EFFECT-COMPOSITE RESCHEDULED. POST-COMPOSITE TESTING WAS REQUIRED.</p> <p>CORRECTIVE ACTION-CALIBRATION PERFORMED CORRECTLY.</p>						
OUTRANCE-GE MOD 1118-A/B RATE BEACON	AERO-0361/FC-4CO-01-08 RATE BEACON	COMPOSITE-FACTORY	800 000618	FACTORY	YES NO	GENERAL ELECTRIC NO IC
<p>FAILURE MODE-ERRATIC OPERATION-RATE BEACON UNLOCKED MOMENTARILY AT 84.8 SECONDS, 83 MILLISECONDS AFTER THE RATE DISABLE FUNCTION WAS REACHED.</p> <p>SYSTEM EFFECT-MOMENTARY ERRATIC OPERATION.</p>						



GENERAL INVESTIGATIVE  
DIVISION

DIFFICULTIES ENCOUNTERED BY THE RESEARCHER

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILURE COMPONENT NAME	SIP DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
VEHICLE TEST-COMPOSITE DELAYED.						
CONNECTIVE ACTION-NONE. GENERAL ELECTRIC STATES THAT THIS IRREGULARITY WOULD NOT AFFECT SYSTEM OPERATION.						
GUIDANCE-62 MOD 111B-A/B	AE90-0004/PC-400-01-41 RATE BEACON	COMPOSITE-FACTORY 410	991087	FACTORY	YES	GENERAL ELECTRIC
FAILURE MODE-ERRATIC OPERATION-RATE BEACON POWER VARIED UP TO 10 PERCENT FOR 0.3 SECONDS WHEN THE RATE DISABLE RELAY WAS PICKED UP. ZERO POWER WAS EXPECTED. THIS CONDITION IS CONSIDERED INSIGNIFICANT TO GEN. ELEC. AND IS ACCEPTABLE ON THIS BASIS.						
SYSTEM EFFECT-NONE. GEN ELEC. CERTIFIED THIS ANOMALY WOULD NOT AFFECT SYSTEM OPERATION.						
VEHICLE EFFECT-NONE.						
CONNECTIVE ACTION-NONE.						
GUIDANCE-62 MOD 111B-A/B	AE90-0197/PC-400-01-41 RATE BEACON	COMPOSITE-FACTORY 410	991087	FACTORY	YES	GENERAL ELECTRIC
FAILURE MODE-ERRATIC OPERATION. THE RATE BEACON POWER CONTAINED VARIATIONS OF SIGNIFICANT MAGNITUDE AND THE RATE BEACON UNLOCKED AT SEVERAL POINTS DURING THE TEST.						
SYSTEM EFFECT-ERRATIC OPERATION-OUTPUT POWER VARIED AND LOCKON LAST SEVERAL TIMES.						
VEHICLE EFFECT-COMPOSITE RESCHEDULED. RETURN OF COMPOSITE MADE WITH NEW RATE BEACON.						
CONNECTIVE ACTION-1B/B AND REPLACED BEACON.						
GUIDANCE-62 MOD 111B-A/B	AE90-0197/PC-400-01-41 RATE BEACON	COMPOSITE-FACTORY 410	991087	FACTORY	YES	GENERAL ELECTRIC
FAILURE MODE-ERRATIC OPERATION. ERRATIC FIRING OF THE RATE BEACON OCCURRED AFTER REMOVAL OF THE RATE DISABLE. THIS WAS ATTRIBUTED TO A TESTED ELYSTON IN THE RATE BEACON CARTRIDGE AND LASTED FOR 0.1 SECONDS.						
SYSTEM EFFECT-ERRATIC OPERATION. ERRATIC FIRING OF ELYSTON CAUSED DELAY OF POWER TO LOCKON MODE.						
VEHICLE EFFECT-COMPOSITE DELAYED. POST COMPOSITE TESTS MADE TO DEMONSTRATE STABILITY OF OPERATION.						
CONNECTIVE ACTION-GEN. ELEC. PERSONNEL HAVE INDICATED THAT THE SMALL DURATION (LESS THAN 0.1 SECONDS) OF THE DELAY OF POWER TO LOCKON MODE IS OF NO CONSEQUENCE.						

25 JUN 1966

GENERAL MICS  
CONVAY DIVISION

DIFFICULTIES REVIEW-GUIDANCE SYSTEM-AIRBORNE

ENTER DOC-NATION	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRE OTH	VENDOR NAME VENDOR PART NO
GUIDANCE-GE MOD 111B-A/S RATE BEACON	ADN-87-308/PC-400-01-41 RATE BEACON; MAGNETRON	COMPOSITE-FACTORY 419	291027	FACTORY	NO	GEN. ELEC.
<p>FAILURE MODE-OUT OF TOLERANCE. DURING RATE BEACON DISABLE CHECK RETRODER INDICATED 10 PCT. OF NOMINAL POWER. ZERO I S EXPECTED. THOUGHT TO BE INDUCED BY NOISE PICKUP IN THE CABLING.</p> <p>SYSTEM EFFECT-NONE.</p> <p>VEHICLE EFFECT-COMPOSITE DELAYED. POST-COMPOSITE TESTS WERE MADE TO DETERMINE SOURCE OF IRREGULARITY. COULD NOT RE EAT DISCREPANCY.</p> <p>CORRECTIVE ACTION-NOT KNOWN. MAGNETRON WAS RETUNED AND RATE BEACON DISABLE WAS PROGRAMMED SEVERAL TIMES DURING POST - COMPOSITE TESTING WITH ZERO OUTPUT IN EACH CASE.</p>						
GUIDANCE-GE MOD 111B-A/S RATE BEACON	FT46190/PI-404-00-10 RATE BEACON	COUNTDOWN	180	11/ETR	YES	GENERAL ELECTR
<p>FAILURE MODE-ERRATIC OPERATION. THE S.E. RATE BEACON EMITTED ERRATIC BEHAVIOR ON AGC NO.1.</p> <p>SYSTEM EFFECT-ERRATIC OPERATION.</p> <p>VEHICLE EFFECT-COUNTDOWN DELAYED. REPLACED RATE BEACON WHICH REQUIRED 119 ADDITIONAL MINUTES TO PREVIOUSLY CALLED H OLD.</p> <p>CORRECTIVE ACTION-REPLACE S.E. GUIDANCE RATE BEACON.</p>						
GUIDANCE-GE MOD 111B-A/S RATE BEACON	EX4341/PI-402-00-17 RATE BEACON	PMF	170	13/ETR	NO	GENERAL ELECTR
<p>FAILURE MODE-ERRATIC OPERATION. AFTER DOWNSENDER TO EXTERNAL POWER THE RATE BEACON LOCK-ON BECAME ERRATIC DUE TO LO W EXTERNAL AC POWER.</p> <p>SYSTEM EFFECT-ERRATIC OPERATION.</p> <p>VEHICLE EFFECT-NONE. VEHICLE DOES NOT REQUIRE RATE BEACON WHILE ON EXTERNAL POWER. INCIDENT OCCURRED AFTER ENGINE S UT-OFF.</p> <p>CORRECTIVE ACTION-RATE BEACON REPLACED AS PRECAUTIONARY MEASURE BEFORE FLIGHT TEST.</p>						
GUIDANCE-GE MOD 111B-A/S PULSE BEACON	AZ08-0432/PI-401-00-03 PULSE BEACON; ALYSTRON TUBE	FLIGHT	230	8-8/ETR	YES	GENERAL ELECTR
<p>FAILURE MODE-FAIL DURING OPERATION. LOSS OF TRACK SYSTEM LOCK OCCURRED AT MINUS 4.3 SECONDS. POSSIBLY CAUSED BY FAI LURE OF PULSE BEACON ALYSTRON TUBE.</p> <p>SYSTEM EFFECT-OPERATION STOPS PROMPTLY. LOSS OF COMMAND LINE.</p>						

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GENERAL ANCS  
COMBAT DIVISION

## DIFFICULTIES REVEN-SUBSANCE SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILURES COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP TIME	SITE DIP TIME	YES OTH	VENDOR NAME VENDOR PART NO
VEHICLE EFFECT-NONE. LOSS OF COMMAND LINK WOULD HAVE PREVENTED TRANSMISSION OF GUIDANCE SIGNALS TO VEHICLE AND WOULD HAVE RESULTED IN MESSAGE FAILURE. HOWEVER, VEHICLE WAS DESTROYED BY RANGE SAFETY AT 25.6 SECONDS AS THE RESULT OF A FLIGHT CONTROL SYSTEM PROBLEM.						
CORRECTIVE ACTION-NONE. REPLACEMENT OF KLYSTRON TUBE IN RECOVERED PULSE BEACON RESTORED OPERATION. ANALYSIS OF 8 BROWN KLYSTRON INDICATED THAT DEGRADING OCCURRED SHORTLY AFTER LOSS OF POWER SINCE CATHODE WAS NOT CONTAMINATED. THERE WAS NO EVIDENCE OF CATASTROPHIC FAILURE PRIOR TO DEGRADING AND ALL PARTS, EXCEPT A CRACKED WINDOW, WERE IN WORKING CONDITION.						
GUIDANCE-EC MOD 111B-A/S PULSE BEACON	A250-0363/PC-ACC-01-00 MAGNETRON	COMPOSITE-FACTORY	800481	FACTORY	NO	GENERAL ELECTRIC
FAILURE MODE-ERRATIC OPERATION-AT APPROXIMATELY 20 SECONDS THE RECORDER INDICATED A MOMENTARY INCREASE OF MAGNETRON CURRENT. THIS WAS ATTRIBUTED TO A FAULTY AGE TEST TAPE.						
SYSTEM EFFECT-ERRATIC OPERATION.						
VEHICLE EFFECT-COMPOSITE RESCHEDULED.						
CORRECTIVE ACTION-NONE. POST COMPOSITE TESTING FAILED TO DUPLICATE THIS CONDITION. RE-RUN OF COMPOSITE SHOWED PROPER OPERATION.						
GUIDANCE-EC MOD 111B-A/S PULSE BEACON	A250-0363/PC-ACC-01-00 MAGNETRON	COMPOSITE-FACTORY	800811	FACTORY	YES	GENERAL ELECTRIC
FAILURE MODE-ERRATIC OPERATION-AT 100.2 SECONDS A THREE PERCENT INCREASE OF VOLTAGE PROPORTIONAL TO INTEGRATED PULSE BEACON MAGNETRON CURRENT OCCURRED. THIS CURRENT HAD BEEN EXTENSIVELY TESTED AFTER REMOVAL FROM BID FOR SAME CAUSE. CAUSE OF THIS IRREGULARITY COULD NOT BE FOUND. G.E. ENGINEERS SAY THIS CONDITION IS ACCEPTABLE.						
SYSTEM EFFECT-NONE-G.E. ENGINEERS SAY THIS SLIGHT INCREASE IN MAGNETRON CURRENT WILL NOT EFFECT SYSTEM PERFORMANCE.						
VEHICLE EFFECT-NONE. G.E. CERTIFIED THIS PROBLEM WOULD HAVE NO EFFECT ON MISSILE FLIGHT.						
CORRECTIVE ACTION-NONE.						
GUIDANCE-EC MOD 111B-A/S PULSE BEACON	A250-0363/PC-ACC-01-00 PULSE BEACON, MAGNETRON	COMPOSITE-FACTORY	800800	FACTORY	NO	GENERAL ELECTRIC
FAILURE MODE-OUT OF TOLERANCE. A FAULTY ADDRESS IN ONE MESSAGE REGISTER CAUSED BY CPU INTERFERENCE IN THE GUIDANCE PULSE BEACON MAGNETRON CURRENT AND CAUSED THE MAGNETRON CURRENT TO APPEAR GREATER DURING THE TEST THAN WAS EXPECTED FROM THE CALCULATED VALUES.						
SYSTEM EFFECT-ERRATIC OPERATION-FAULTY ONE MESSAGE REGISTER CAUSED ERRATIC OPERATION OF PULSE BEACON.						
VEHICLE EFFECT-COMPOSITE DELAYED. POST-COMPOSITE TESTING REQUIRED TO DEMONSTRATE PROPER OPERATION.						

16 JUN 1968

GENERAL DYNAMICS  
COMPAIR DIVISION

## DIFFICULTIES REVIEW-ORANGE SYSTEM-ALBION

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	YES OTH	VEHICLE NAME VEHICLE PART NO
CORRECTIVE ACTION-NOT KNOWN.						
ORANGE-GE MOD 111B-A/B PULSE BEACON	A2H-27-423/PC-400-01-47 PULSE BEACON, MAGNETRON	COURTROOM	400 501210	13/ETS -2100	NO NO IC	GENERAL ELECTRIC
FAILURE MODE-ERRATIC OPERATION. IMPROPER SIGNALS CAUSED BY MULTIPATH. ATTRIBUTED TO WEATHER CONDITIONS.						
SYSTEM EFFECT-IMPROPER ANALOG PITCH SIGNALS.						
VEHICLE EFFECT-DELAYED COURTROOM 9 MINUTES.						
CORRECTIVE ACTION-NONE.						
ORANGE-GE MC 111B-A/B PULSE BEACON	A2H-27-423/PC-400-01-47 PULSE BEACON, MAGNETRON	COMPOSITE-FACTORY	470 501125	FACTORY	NO NO IC	GENERAL ELECTRIC
FAILURE MODE-ERRATIC OPERATION-PULSE BEACON CURRENT DISPLAYED TWO DROPOUTS TO NEAR ZERO FOR SHORT DURATIONS DURING THE TEST. IT IS SUSPECTED THAT OVERHEATING OF THE ACCELERATION RESISTOR IN THE GAGE CAUSED EXCESSIVE HEATINGS TO BE TRANSMITTED CAUSING UNLOCKING OF THE PULSE BEACON.						
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.						
VEHICLE EFFECT-COMPOSITE DELAYED. POST-COMPOSITE TESTING INDICATED SATISFACTORY PERFORMANCE OF THE PULSE BEACON.						
CORRECTIVE ACTION-NONE.						
ORANGE-GE MOD 111B-A/B PULSE BEACON	A2H-27-423/PC-400-01-49 PULSE BEACON	COMPOSITE-FACTORY	280 501008	FACTORY	YES NO IC	GENERAL ELECTRIC
FAILURE MODE-ERRATIC OPERATION-POSITIVE VARIATIONS OF VARIOUS AMPLITUDES IN MAGNETRON CURRENT WERE NOTED DURING THE TEST.						
SYSTEM EFFECT-ERRATIC OPERATION. FAULTY PULSE BEACON CAUSED ERRATIC OUTPUT POWER LEVELS.						
VEHICLE EFFECT-COMPOSITE REMOVED.						
CORRECTIVE ACTION-PULSE BEACON REPLACED. COMPLETE COMPOSITE RETEST WAS PERFORMED.						
ORANGE-GE MOD 111B-A/B PULSE BEACON	A2H-27-423/PC-400-01-44 PULSE BEACON, MAGNETRON	COMPOSITE-FACTORY	280 500912	FACTORY	YES NO IC	GENERAL ELECTRIC
FAILURE MODE-ERRATIC OPERATION-ERRATIC VARIATIONS OF PULSE BEACON. MAGNETRON CURRENT WERE OBSERVED. DUE TO HIGH FOR AIR TEMPERATURE.						
SYSTEM EFFECT-ERRATIC OPERATION.						

GENERAL DYNAMICS  
CONVAIR DIVISION

10 JUN 1966

DIFFICULTIES REVIEW-VOIDANCE SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	SIP DATA PART NUMBER	VEHICLE DATE DIS	SITE TIME DIS	PHI OTH	VEHICLE NAME VEHICLE PART NO
VEHICLE EFFECT-COMPOSITE REORDERED.						
CORRECTIVE ACTION-PCB TEMPERATURE CORRECTED. A COMPLETE COMPOSITE RETEST WAS PERFORMED.						
VOIDANCE-GE MOD 111B-A/S PULSE BEACON	A2N-27-257/PC-400-04-21 PULSE BEACON	COMPOSITE-FACTORY	210 590715	FACTORY	YES NO	GENERAL ELECTRIC NO IC
FAILURE MODE-ERRATIC OPERATION-REORDER INDICATED 140 CPS NOISE PLUS ABOUT 6 DROPOUTS INDICATING MOMENTARY BUS MESS AGES. THIS NOISE HAS BEEN TRACED TO THE PULSE BEACON.						
SYSTEM EFFECT-ERRATIC OPERATION-FAULTY PULSE BEACON CAUSED ERRATIC OUTPUT SIGNALS.						
VEHICLE EFFECT-COMPOSITE REORDERED.						
CORRECTIVE ACTION-BEACON REPLACED.						
VOIDANCE-GE MOD 111B-A/S PULSE BEACON	FT4400A/PC-301-00-5 PULSE BEACON	COUNTDOWN	5 591300	12/ETR -0300	YES NO	GENERAL ELECTRIC NO IC
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. VOIDANCE PULSE BEACON DID NOT LOCK ON.						
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.						
VEHICLE EFFECT-COUNTDOWN DELAYED. HOLD OF 60 MINUTES WAS REQUIRED.						
CORRECTIVE ACTION-REPLACED PULSE BEACON.						
VOIDANCE-GE MOD 111B-A/S DECODER	A2N-0477/PC-401-00-140 DECODER	FLIGHT	1400 000427	9-0/ETR 202	YES NO	GENERAL ELECTRIC NO IC
FAILURE MODE-OUT OF TOLERANCE. VOIDANCE STEERING SIGNALS WERE BELIEVED RESPONSIBLE FOR STEERING ROLL OSCILLATIONS DURING VEHICLE HOLD PHASE TO A MAXIMUM OF 9.7 DEG/SEC AT 1.5 CPS.						
SYSTEM EFFECT-ERRATIC OPERATION. YAW COMMANDS, ALTERNATING RELATIVE AND POSITIVE WERE GENERATED DURING VEHICLE HOLD						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-UNKNOWN.						
VOIDANCE-GE MOD 111B-A/S DECODER	A2N-0140/PC-401-00-07 DECODER	FLIGHT	070 001110	14/ETR -7140	NO NO	GENERAL ELECTRIC NO IC
FAILURE MODE-OUT OF TOLERANCE. VOIDANCE WAS NO-60 ON ALL LOOP TEST TESTS EXCEPT TEST NO-1 DUE TO GROUND STATION PRO BLEND.						

16 JUN 1966

GENERAL AMICS  
COMBAT DIVISION

## DIFFICULTIES SYSTEM-GUIDANCE SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/RETRY NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	YES OTH	VEHICLE NAME VEHICLE PART NO
SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS. GUIDANCE WAS NO GO ON ALL LOOP TESTS EXCEPT TEST 1 BECAUSE OF A SIMULATOR PROBLEM AT WHEEDS HIRSHLE CONTROL FACILITY NO.1.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-LOOP TEST NEEDED.						
GUIDANCE-GE MOD 111B-A/B	ACDB-1087/7C-4C0-02-080 DECODER	COMPOSITE-FACTORY	908 C01110	FACTORY	NO	GENERAL ELECTR IC
FAILURE MODE-OUT OF TOLERANCE. CHANNEL 27 OF INTERFEROMETER ACCORDING NO. 1, DISCRETE RELAY LOCKIN, INDICATED A DECREASED DEFLECTION AT THE SIMULANEOUS LOCKIN OF RELAYS 4 AND 9 WHEN A SMALL INCREASE WAS EXPECTED. THIS CONDITION WAS CAUSED BY A FAULTY CIRCUIT IN THE ERROR COUNTER DRIVER OF G.E. ARE.						
SYSTEM EFFECT-NONE.						
VEHICLE EFFECT-COMPOSITE MISCORRECTION. POST-COMPOSITE TESTING WAS REQUIRED.						
CORRECTIVE ACTION-THE ERROR COUNTER DRIVER WAS REPLACED.						
GUIDANCE-GE MOD 111B-A/B	ACDB-00227E-475-00-26 GUIDANCE DECODER	FLIGHT	500 002200	12/ETR 004-00	NO NO	GENERAL ELECTR IC
FAILURE MODE-PREATURE OPERATION. THE GUIDANCE GROUP SYSTEM GENERATED THE VEHICLE CUTOFF DISCRETE SLIGHTLY PREMATURELY. THE AIRBORNE DECODER ISSUED THE DISCRETE TO THE AIRBORNE SYSTEM.						
SYSTEM EFFECT-IMPROPER DISCRETE SIGNAL. BASED ON THE VELOCITY TO BE GAINED DATA, THE VECO DISCRETE WAS SLIGHTLY PREMATURE.						
VEHICLE EFFECT-PREATURE VEHICLE ENGINE CUTOFF. B/V IMPACT WAS SATISFACTORY.						
CORRECTIVE ACTION-NONE.						
GUIDANCE-GE MOD 111B-A/B	ACDB-0450/7E-001-00-03 DECODER, TUBES	FLIGHT	200 002300	5-2/ETR -4.0	YES YES	GENERAL ELECTR IC
FAILURE MODE-FAIL DURING OPERATION. LOSS OF TRACK SYSTEM LOCK OCCURRED AT MINUS 4.0 SECONDS. POSSIBLY CAUSED BY FAILURE OF ONE OR MORE TUBES WITHIN THE DECODER.						
SYSTEM EFFECT-OPERATION STOPS PREMATURELY. LOSS OF COMMAND LINK.						
VEHICLE EFFECT-NONE. LOSS OF COMMAND LINK WOULD HAVE PREVENTED TRANSMISSION OF GUIDANCE COMMANDS TO VEHICLE AND WOULD HAVE RESULTED IN MAJOR FAILURE. HOWEVER, VEHICLE WAS RESTRICTED BY RANGE SAFETY AT 23.0 SECONDS AS THE RESULT OF A PLANT CONTROL SYSTEM PROBLEM.						
CORRECTIVE ACTION-NONE. 27 TUBES WERE REPLACED IN RECOMMEND RECOVER BEFORE PROPER OPERATION OBTAINED. IT IS WHEN						

15 JUN 1998

GENERAL DYNAMICS  
COMNAVIR DIVISION

DIFFICULTIES REVIEW-OUTDANCE SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE D-I-P	SITE TIME D-I-P	PSI OTH	VENDOR NAME VENDOR PART NO
OUR WHETHER ANY OF THESE HAD FAILED PRIOR TO VEHICLE DESTRUCTION OR CANNISTER IMPACT.						
OUTDANCE-RE MOD 111B-A/S RECORD	A280-5197/7C-400-02-15 RELAY-STAGING LOCKOUT	COMPOSITE-FACTORY	NO	FACTORY	YES NO	GENERAL ELECTRIC NO IC
FAILURE MODE-PREATURE OPERATION STAGING LOCKOUT RELAY ACTIVATED AFTER LESS THAN THE EXPECTED NUMBER OF DISCRETE MESSAGES WERE TRANSMITTED. THIS CONDITION WAS APPARENTLY CAUSED BY THE COMPANION DRUMMER IN THE GROUND TEST 2 COMPONENT. POST COMPOSITE TESTING FAILED TO REPEAT THIS CONDITION.						
SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS-DISCRETE RELAY ACTIVATED AFTER FIVE DISCRETE MESSAGES SENT. THE TOLERANCE FOR THIS RELAY ACTIVATION IS SIX TO TWELVE COUNTS.						
VEHICLE EFFECT-COMPOSITE DELAYED-SIX POST-COMPOSITE TESTS MADE IN EFFORT TO MAKE RELAY ACTIVATE EARLY. COULD NOT MAKE RELAY TO FAIL.						
CORRECTIVE ACTION-NONE.						
OUTDANCE-RE MOD 111B-A/S RECORD	PTA1194/71-400-02-15 RECORD	COMPOSITE-2 FACT	150	11/5/97	YES NO	GENERAL ELECTRIC NO IC
FAILURE MODE-OUT OF TOLERANCE. RELATIVE PITCH STEERING COMMANDS WERE OBSERVED TO BE 50 PERCENTFULL SCALE WHEN 100 PERCENT FULL SCALE COMMANDS WERE BEING TRANSMITTED. THIS WAS DUE TO A MALFUNCTIONING DECODER.						
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. DATA INDICATED 50 PERCENT FULL SCALE RELATIVE PITCH STEERING COMMANDS WHEN 100 PERCENT FULL SCALE COMMANDS WERE BEING TRANSMITTED.						
VEHICLE EFFECT-NONE. IT WAS CONCLUDED MALFUNCTION WOULD NOT PREVENT MEETING TEST OBJECTIVES AND THE TEST WAS CONTINUED.						
CORRECTIVE ACTION-RECODER WAS REPLACED AFTER TEST.						
OUTDANCE-RE MOD 111B-A/S RECORD	2M-7-97B-7C-300-02-11 RELAY	COMPOSITE-FACTORY	11C	FACTORY	YES NO	GENERAL ELECTRIC NO IC
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. DISCRETE RELAY NO. 7 DID NOT ACTIVATE DURING AIRBORNE TESTING WHEN ACTIVATION WAS EXPECTED. RELAY NO. 7 CONTACTS WERE SHORTED.						
SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS.						
VEHICLE EFFECT-COMPOSITE DELAYED.						
CORRECTIVE ACTION-NONE.						

16 JUN 1968

GENERAL DYNAMICS  
COMPUTER DIVISION

DIFFICULTIES REVIEW-GUIDANCE SYSTEM-AIRBORNE

SYSTEM SND-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	BIF DATA SOURCE PART NUMBER	VEHICLE DATE BIF	SITE TIME BIF	PRE OTH	VEHICLE NAME VEHICLE PART NO
GUIDANCE-GE MOD 111B-A/B DECODER	PTA4894/P3-008-00-03 RELAY	COUNTDOWN	90	13/ETR	YES NO IC	907036
<p>FAILURE MODE-PREMIATURE OPERATION. RELAY NUMBER 4 WAS ACTIVATED WHEN NO DISCRETES WERE BEING SENT.</p> <p>SYSTEM EFFECT-IMPROPER DISCRETE SIGNAL.</p> <p>VEHICLE EFFECT-COUNTDOWN DELAYED.</p> <p>CORRECTIVE ACTION-CHARACTER CHANGED.</p>						
GUIDANCE-GE MOD 111B-A/B DECODER	A2C-27-051/P3-002-00-03 GUIDANCE DECODER	COUNTDOWN	90	13/ETR	YES NO IC	901447
<p>FAILURE MODE-OUT OF TOLERANCE. GUIDANCE SYSTEM NOT FUNCTIONING PROPERLY. NATURE OF INTERFERENCE UNKNOWN.</p> <p>SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS.</p> <p>VEHICLE EFFECT-COUNTDOWN OR COMPOSITE DELAYED. 2 HOUR HOLD.</p> <p>CORRECTIVE ACTION-THE AIRBORNE DECODER WAS REPLACED. CORRECTIVE ACTION FOR THE DECODER IS NOT KNOWN.</p>						
GUIDANCE-GE MOD 111B-A/B DECODER	A2A-27-257/P3-000-00-01 DECODER	COMPOSITE-FACTORY	210	FACTORY	NO NO IC	900061
<p>FAILURE MODE-FAIL DURING OPERATION. TWO 30TON AND NO VAN STEERING COMMANDS WERE SENT SIMULTANEOUSLY WHICH WERE AFTER LARGED TO THE TEST EQUIPMENT DECODER.</p> <p>SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. FAULTS ARE CAUSED AIRBORNE DECODER TO PUT OUT FALSE SIGNALS OR NO SIGNALS IN ON REQUIRED.</p> <p>VEHICLE EFFECT-COMPOSITE RECHECKED. COMPOSITE RETEST REQUIRED.</p> <p>CORRECTIVE ACTION-NOT KNOWN.</p>						
GUIDANCE-GE MOD 111B-A/B DECODER	A2A-27-258/P3-000-00-17 DECODER	COMPOSITE-FACTORY	170	FACTORY	YES NO IC	900061
<p>FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME- PRE-ARM SIGNAL DID NOT OCCUR DECODER WAS NOT BEEN MODIFIED TO MAKE IT COMPATIBLE WITH DATE DECODER.</p> <p>SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS.</p> <p>VEHICLE EFFECT-COMPOSITE DELAYED.</p> <p>CORRECTIVE ACTION-DECODER REPLACED PRIOR TO LAUNCH.</p>						



16 JUN 1968

GENERAL JCS  
COMBAT DIVISION

## DIFFICULTIES SYSTEM-ORANGE SYSTEM-AIRBORNE

SYSTEM AND-STATUS	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF TIME	SITE DIF TIME	YES FACTORY	NO IC	YOUNG NAME NUMBER PART NO
ORANGE-GE NOB 1118-A/B RECORD	A3C-87-084/P9-404-08-14 RELAY	COMPOSITE-FACTORY	90608	11/17/78	YES	NO	GENERAL ELECTRIC
<p>FAILURE MODE-OUT OF TOLERANCE-RELAY RESPONSE TIME WAS 18 MILLISECONDS. MINIMUM IS 21 MILLISECONDS.</p> <p>SYSTEM EFFECT-IMPROPER DISCRETE SIGNAL. THE DISCRETE RELAY ACTIVATION TIME WAS TOO LOW.</p> <p>VEHICLE EFFECT-COMPOSITE REDUCED. THE COMPOSITE TEST WAS PERFORMED AGAIN.</p> <p>CORRECTIVE ACTION-RECORD WAS REPLACED.</p>							
ORANGE-GE NOB 1118-A/B ANTENNA AND WAVEGUIDE	A3C-87-084/P9-404-08-14 ANTENNA	FLIGHT	90608	11/17/78	YES	NO	GENERAL ELECTRIC
<p>FAILURE MODE-ORBITAL OPERATION. STARTING 10 SECONDS AFTER SECO. A SERIES OF SIX RATE SIGNAL INTERRUPTIONS OF LESS THAN 0.1 SECOND DURATION OCCURRED. DURING THE SECOND DISTURBANCE THE SPOOF STATION UNLOADED GIVING BAD RATE DATA TO THE COMPUTER. ALL DISTURBANCES WERE COINCIDENT WITH FIRING OF PHOTOFLASH CARTRIDGES.</p> <p>SYSTEM EFFECT-IMPROPER DISCRETE SIGNAL. DURING THE PERIOD OF BAD RATE DATA THE COMPUTER, USING IMMEDIATELY PREVIOUSLY FURNISHED TRACK INFORMATION, GENERATED THE WOOD DISCRETE EARLY.</p> <p>VEHICLE EFFECT-REDUCED VEHICLE ENGINE CUTOFF. RE-ENTRY VEHICLE IMPACT WAS SLIGHTLY SHORT OF TARGET.</p> <p>CORRECTIVE ACTION-NONE.</p>							
ORANGE-GE NOB 1118-A/B ANTENNA AND WAVEGUIDE	A3C-87-084/P9-404-08-14 ANTENNA	FLIGHT	90608	11/17/78	YES	NO	GENERAL ELECTRIC
<p>FAILURE MODE-FAIL DURING OPERATION. LOSS OF RATE LOCK DUE TO POOR ANTENNA LOCK ANGLES DURING VERIFIED SOLO PHASE. THE LACK OF VERIFIED ENGINE CONTROL DUE TO LACK OF HYDRAULIC PRESSURE ALLOWED VEHICLE ATTITUDE TO CHANGE AND RESULTED IN POOR ANTENNA LOCK ANGLES.</p> <p>SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS. THE COMPUTER DIFFERENTIATED TRACK DATA TO OBTAIN RATE DATA.</p> <p>VEHICLE EFFECT-REDUCED VEHICLE ENGINE CUTOFF. DUE TO THE IMMEDIATELY PREVIOUSLY DIFFERENTIATED TRACK DATA. THE VERIFIED CUTOFF DISCRETE WAS GENERATED SLIGHTLY EARLY AND RESULTED IN IMPACT SLIGHTLY SHORT OF TARGET.</p> <p>CORRECTIVE ACTION-NONE.</p>							
ORANGE-GE NOB 1118-A/B ANTENNA AND WAVEGUIDE	A3C-87-084/P9-404-08-14 ANTENNA	FLIGHT	90608	11/17/78	YES	NO	GENERAL ELECTRIC
<p>FAILURE MODE-FAIL DURING OPERATION. LOSS OF RATE LOCK DUE TO POOR ANTENNA LOCK ANGLE FROM 70 TO 140 DEGREES. ANTENNA WAS LOCATED IN 84 DEG.</p> <p>SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. THE COMPUTER GENERATED DISCRETE TRACK DATA FROM 140 TO 148 DEGREES.</p>							

GENERAL INVESTIGATIVE  
DIVISION

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED

STATION SND-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	BIP DATA SOURCE PART NUMBER	VEHICLE DATE S/P	SITE TIME S/P	PRF O/R	VEHICLE NAME VEHICLE PART NO
<p>04: THE RATE DATA WAS NOT AVAILABLE AND TRACE DATA WAS USED.</p> <p>VEHICLE EFFECT-IMPROPER TRAJECTORY, EXCESSIVE YAW SPEEDING FROM 140 TO 145 DEGREES. AFTER RATE DATA WAS AVAILABLE, THE STEERING COMMANDS APPLIED NORMALLY.</p> <p>CORRECTIVE ACTION-NONE.</p>						
GUIDANCE-GE NOC 1118-A/B	PIAAS-PA-401-00-01	PRF	TO	14/ETR	YES	GENERAL ELECTRIC
ANTENNA AND INVERTER	ANTENNA		800000	-120	NO	IC
<p>FAILURE MODE-OUT OF TOLERANCE. UNSTABLE GUIDANCE RETURN SIGNAL WAS EXPERIENCED FROM 1-7 MINUTES TO THE MINUTES. THE PROBLEM WAS APPARENTLY CAUSED BY THE EFFECTS OF Frost ON THE PLUMB-MOUNTED ANTENNA.</p> <p>SYSTEM EFFECT-DYNAMIC OPERATION. UNSTABLE GUIDANCE RETURN SIGNAL.</p> <p>VEHICLE EFFECT-NONE.</p> <p>CORRECTIVE ACTION-NONE.</p>						
GUIDANCE-GE NOC 1118-A/B	GOA-MP264-003/AL-401-00-048	FLIGHT	P430	A-1	YES	
WAVE BEACON	WAVE BEACON GE		800015	02-0	NO	
<p>FAILURE MODE-FAIL DURING OPERATION. UNEXPECTED FAILURE OF CERTS RATE BEACON REGENERATED DIFFERENTIATING TRACE DATA TO TRIGGER RATE DATA.</p> <p>SYSTEM EFFECT-OPERATION TO LOW LOSS OF CERTS RATE BEACON AFFECTED THE ACCURACY OF THE RANGE SAFETY SYSTEM INSTANTANEOUS IMPACT PREDICTION COMPUTATIONS DUE TO ADDITIONAL IMPACT DISPERSIONS INTRODUCED THROUGH DIFFERENTIATED TRACE DATA. AS A RESULT A PREEMPTIVE ALL PRIORITY CUTOFF SIGNAL WAS GENERATED BY RANGE SAFETY.</p> <p>VEHICLE EFFECT-PROPAGATION WAVELENGTH ENGINE CUTOFF. RE-ENTRY VEHICLE IMPACT WAS LOW ENOUGH DUE TO THE RANGE SAFETY BEACON AT 1000 ALL ENGINES CUTOFF AT 8000 +1 SECOND.</p> <p>CORRECTIVE ACTION-NO CORRECTIVE ACTION TAKEN.</p>						
GUIDANCE-GE NOC 1118-A/B	ALC-3044-70-401-00-020	CONNECTION	8530	12/ETR	NO	GENERAL ELECTRIC
WAVE BEACON	WAVE BEACON		800727	-1200	NO	IC
<p>FAILURE MODE-OUT OF EXPECTED TEST VALUE. ILLEGITIMATE NONE CONDITION ON CENTRAL RATE RECEIVED OF THE NOC 1118 GROUP 3 STATION.</p> <p>SYSTEM EFFECT-100000 ANALOG SIGNAL. INTERMITTENT NONE CONDITION ON CENTRAL RATE RECEIVED OF THE NOC 1118 GROUP 3 STATION.</p> <p>VEHICLE EFFECT-CONNECTION ADAPTED AND REPROGRAMMED. NOC 3 FOR 20 MINUTES PRIOR TO REPROGRAMMING.</p> <p>CORRECTIVE ACTION-INVESTIGATION.</p>						

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GENERAL DYNAMICS  
CONTROL DIVISION

## DIFFICULTY REVIEW-GUIDANCE SYSTEM-AIRBORNE

SYSTEM 350-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	SIF DATA SOURCE PART NUMBER	VEHICLE DATE DIS	DATE TIME DIS	PRELIMINARY YES NO	VEHICLE NAME VEHICLE PART NO
GUIDANCE-4E MOD 1110-A/S RATE BEACON	AL-200-00-044 RATE BEACON	COMPOSITE-FPB/0PL 27-46300	2450 040000	4-1/4/78	YES NO	YES NO
FAILURE MODE-ORIGIN: VOLTAGE PROPORTIONAL TO RATE BEACON IF POWER OUTPUT MARGINAL WITH INDICATIONS OF DEGENERATION PD ON PREVIOUS TESTS.						
SYSTEM EFFECT-NONE.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-CHECK BY AIRTE INDICATED IF POWER OUTPUT NOT DELAYING. FAULT MOST LIKELY IN WP CIRCUIT. RATE BEAC ON CHANGED TO PREVENT NO-DC ON AIRTE'S IN FUTURE TESTS.						
GUIDANCE-4E MOD 1110-A/S RATE BEACON	FT-2450/00-000-05-200 RATE BEACON	COMPOSITE-J FACT 2000 040000	2000 040000	12/4/78	YES NO	YES NO
FAILURE MODE-ORIGIN-RATE BEACON IF POWER OUTPUT DATA INDICATED MARGINAL CHANGED DURING THE CONSUMED TESTS. PROPER LE VEL WAS ATTAINED BY 170 SECONDS IN THE TEST.						
SYSTEM EFFECT-CORRECTION TOO LOW.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-UNKNOWN.						
GUIDANCE-4E MOD 1110-A/S RATE BEACON	AL-200-00-044 RATE BEACON	COMPOSITE-J FACT 27-00004	2000 080010	12/4/78	YES NO	YES NO
FAILURE MODE-OUT OF SPECIFICATION ON VOLTAGE. RATE BEACON IF POWER WAS BELOW LIMITS.						
SYSTEM EFFECT-CORRECTION TOO LOW.						
VEHICLE EFFECT-CORRECTION DELAYED.						
CORRECTIVE ACTION-RATE BEACON REPAIRED.						
GUIDANCE-4E MOD 1110-A/S RATE BEACON	AL-200-00-044 RATE BEACON, ELUTION	FLIGHT 764120400	2100 081010	12/4/78	YES NO	YES NO
FAILURE MODE-FAIL DURING OPERATION. GUIDANCE SYSTEM RATE LOCK WAS OBTAINED AT 90 SECONDS. AFTER 24.0 SECONDS OF NORMAL OPERATION THE SETPOINT SIGNAL FROM THE RATE BEACON CHANGED. VOLTAGE INDICATED INPUT VOLTAGES WERE NORMAL THROUGHOUT FLIGHT. FAILURE TRIGGERED CAUSED BY RATE BEACON ELUTION MALFUNCTION OF ASSOCIATED CIRCUITRY.						
SYSTEM EFFECT-CORRECTION TOO LOW. RATE BEACON RETURN SIGNAL CHANGED WITH ONLY 9000 INTERMITTENT RESPONSES. INDICATOR OF 8.0 SECONDS DURATION OF LESS. AIRBORNE SYSTEM WAS DIFFERENTIATED TRACE DATA IN LIES OF HOLDING HAVE IN						

GENERAL DYNAMICS  
COMBAT DIVISION

16 JUN 1965

DIFFICULTIES REVIEW-GUIDANCE SYSTEM-ALBION

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	SIP DATA SOURCE PART NUMBER	VEHICLE DATE SIP	SITE TIME SIP	PSI OTH	VEHICLE NAME VEHICLE PART NO
VEHICLE EFFECT-NONE. DIFFICULTIES TRACK DATA ALTHOUGH HOLD IS SUFFICIENTLY ACCURATE FOR SUCCESSFUL FULFILLMENT OF TRAJECTORY CRITERIA.						
CORRECTIVE ACTION-NONE KNOWN.						
GUIDANCE-RE MOD 1116-A/S RATE BEACON	ALBION-0001/78-402-00-179 RATE BEACON	COUNTDOWN	1790 000000	12/67H -00	NO NO IC	GENERAL ELECTRIC 764134181.2
FAILURE MODE-OUT OF TOLERANCE. ALL GUIDANCE BEACON ANGLES WERE FLUCTUATING APPARENTLY DUE TO THE LOW 30SLOFF PLUME.						
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. BEACON ANGLES WERE OSCILLATING.						
VEHICLE EFFECT-COUNTDOWN DELAYED. COUNT WAS RECYCLED TO 1-9 MINUTES, TWICE, ONCE FROM -00 SECONDS, AND ONCE FROM -4 SECONDS. TOTAL HOLD TIME WAS 32 MINUTES.						
CORRECTIVE ACTION-NONE.						
GUIDANCE-RE MOD 1116-A/S RATE BEACON	ALBION-0002/78-402-00-180/PC-400-010 COMPOSITE-FACTORY -100 RATE BEACON	FACTORY	1800 000707	12/67H -00	YES NO IC	GENERAL ELECTRIC 764134040
FAILURE MODE-OUT OF TOLERANCE. THE RATE BEACON SENSITIVITY OF -40 DBM READ DURING THE CONFIDENCE CHECK DID NOT AGREE WITH PREVIOUS READINGS RANGING FROM -17 TO -75 DBM. TLM RECORDINGS INDICATED SHEDDING OF THE RATE BEACON POWER DURING THE SHEDDING TEST. RECEIVED SIGNAL NO. 1 WAS APPROXIMATELY HALF OF THAT EXPECTED.						
SYSTEM EFFECT-OPERATION TOO LOW.						
VEHICLE EFFECT-NONE. CORRECTIONS WERE RETRAITS TO BE ACCOMPLISHED AT THE LAUNCH SITE.						
CORRECTIVE ACTION-NONE. GUIDANCE SYSTEM IMMEDIATELY WAS HELD BY THE PROGRAMING ACTIVITY TO EXPEDITE SHIPMENT OF THE VEHICLE.						
GUIDANCE-RE MOD 1116-A/S RATE BEACON	ALBION-0003/78-402-00-143 RATE BEACON	FLIGHT	1430 000702	12/67H 171	YES NO IC	GENERAL ELECTRIC
FAILURE MODE-ERRATIC OPERATION-DURING 6 PERIODS FOLLOWING RATE UNLOCK DUE TO SIGNAL LOSS, THE RATE BEACON FAILED TO LOCK WITH THE GROUND SYSTEM CORRECTLY (FALSE LOCK).						
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS-THE RATE BEACON FAILURE, COMPLETED WITH AN ERROR IN THE GUIDANCE EQUATIONS RESULTED IN ERRONEOUS GUIDANCE STEERING COMMANDS.						
VEHICLE EFFECT-IMPROPER TRAJECTORY-THE ERRONEOUS GUIDANCE STEERING COMMANDS RESULTED IN AN IMPROPER TRAJECTORY AND THE NECESSITY OF VEHICLE DESTRUCT.						
CORRECTIVE ACTION-NONE. THE GROUP 1 MOD 1116 RATE BEACON REDUCES THE POSSIBILITY OF FALSE LOCK. A GROUP 1 BEACON WAS PLUMED ON THIS VEHICLE.						

GENERAL DYNAMICS  
CORPORATION

OFFICIAL USE ONLY - SECURITY INFORMATION - 370 TEN-4 MOBILE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRE VEHICLE PART NO	VEHICLE NAME VEHICLE PART NO
GUIDANCE-GE MOD 1116-A/B RATE BEACON	AR141-0-1-1176/77-400-08-1179 RATE BEACON	COMPOSITE-FACTORY	1790 080829	FACTORY	YES 6/7 NO	704126444
FAILURE MODE-ERRATIC OPERATION. THE VOLTAGE PROPORTIONAL TO RATE BEACON POWER DROPPED OUT 4 TIMES DURING THE TEST.						
SYSTEM EFFECT-ERRATIC OPERATION.						
VEHICLE EFFECT-COMPOSITE REWORKED.						
CORRECTIVE ACTION-THE RATE BEACON WAS REPLACED.						
GUIDANCE-GE MOD 1116-A/B RATE BEACON	AR141-0-1-1145/77-400-08-142 RATE BEACON	COMPOSITE-FACTORY	1420 041204	FACTORY	YES GENERAL ELECTRIC NO IC 704122004	
FAILURE MODE-ERRATIC OPERATION. RECORDER THAT MONITORS VOLTAGE PROPORTIONAL TO RATE BEACON POWER, INDICATED SWEEPIN G BETWEEN NOMINAL AND ZERO POSITIONS FROM 90 TO 180 SECONDS. THE RATE BEACON WAS FOUND TO BE FAULTY AND WAS REPLACED .						
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. RATE BEACON WAS SWEEPING IN AND OUT. BEACON REQUESTED FOR EXCESSIVE WARM UP T IME.						
VEHICLE EFFECT-COMPOSITE REWORKED-COMPOSITE REBORN.						
CORRECTIVE ACTION-RATE BEACON REPLACED.						
GUIDANCE-GE MOD 1116-A/B RATE BEACON	AA66-0154/77-400-08-117 RATE BEACON	COMPOSITE-J FACT	1170 041008	10/6/78	YES GENERAL ELECTRIC NO IC	
FAILURE MODE-OUT OF TOLERANCE. GUIDANCE RATE BEACON OUTPUT DETERIORATED.						
SYSTEM EFFECT-ERRATIC OPERATION.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-RATE BEACON REPLACED.						
GUIDANCE-GE MOD 1116-A/B RATE BEACON	AA66-0153/77-400-08-117 RATE BEACON	COMPOSITE-B FACT	1170 041008	10/6/78	YES GENERAL ELECTRIC NO IC	
FAILURE MODE-OUT OF TOLERANCE. GUIDANCE RATE BEACON MALFUNCTIONED.						
SYSTEM EFFECT-ERRATIC OPERATION.						
VEHICLE EFFECT-NONE.						

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GENERAL - JANICS  
COMPAR DIVISION

18 JUN 1966

DIFFICULTIES REVIEW-GUIDANCE SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PHI OTH	VEHICLE NAME VEHICLE PART NO
CORRECTIVE ACTION-REPLACED RATE BEACON. (CORRECTIVE ACTION ON RATE BEACON UNRECORDED).						
GUIDANCE-GE MOD 1116-A/B RATE BEACON	AERO-0339/PC-400-01-02 RATE BEACON	COMPOSITE-FACTORY:	020 000330	FACTORY	YES NO	GENERAL ELECTRIC MC IC
FAILURE MODE-ERRATIC OPERATION. ABOUT 10 SHORT DURATION DROPOUTS OF RATE BEACON POWER WERE RECORDED. MANY OF THESE WERE REFLECTED ON TLM MEASUREMENTS OF RATE BEACON POWER, PHASE, AND AFC.						
SYSTEM EFFECT-ERRATIC OPERATION-ABOUT 10 SHORT DROPOUTS OF RECORDED BEACON POWER WERE INDICATED.						
VEHICLE EFFECT-COMPOSITE DELAYED.						
CORRECTIVE ACTION-NOT KNOWN. POST-COMPOSITE TESTS MADE IN EFFORT TO REPEAT THIS IRREGULARITY.						
GUIDANCE-GE MOD 1116-A/B RATE BEACON	2N-7-876/PC-300-01-11 TRANSMITTER, CONNECTOR	COMPOSITE-FACTORY	11C 960804	FACTORY	YES NO	GENERAL ELECTRIC MC IC
FAILURE MODE-ELECTRICAL OPEN. RATE BEACON POWER INDICATIONS MONITORED ON TELEMETRY WERE ERRATIC. FURTHER TESTING REVEALED THAT PIN A TO JAP-2 WAS NOT SOLDERED.						
SYSTEM EFFECT-ERRATIC OPERATION.						
VEHICLE EFFECT-COMPOSITE DELAYED.						
CORRECTIVE ACTION-RATE BEACON WAS REPLACED. POST-COMPOSITE TESTING WAS SATISFACTORY.						
GUIDANCE-GE MOD 1116-A/B PULSE BEACON	AERO-0003-0000/PC-00-01-0000-001 PULSE BEACON	COMPOSITE-FACTORY	000010	FACTORY	YES NO	GENERAL ELECTRIC MC IC 76418476-4
FAILURE MODE-OUT OF TOLERANCE - VOLTAGE PROPORTIONAL TO PULSE BEACON AGE AT -50 DBM INTEGRATION LEVEL WAS 126 WDC W/ MOD 1.7 TO 3.1 WDC WAS EXPECTED. A TEMPERATURE SENSITIVE COMPONENT IN THE PULSE BEACON A/C TELEMETRY CONTRIBUTING C/ INDUSTRY WAS AT FAULT.						
SYSTEM EFFECT-NONE.						
VEHICLE EFFECT-NONE. SINCE THE PULSE BEACON WAS A SLAVE UNIT AND ALL COMPOSITE CONDITIONS HAD BEEN MET, NO RETESTING WAS REQUIRED.						
CORRECTIVE ACTION-THE PULSE BEACON WAS REJECTED (SLAVE CAN).						
GUIDANCE-GE MOD 1116-A/B PULSE BEACON	AERO-0003/PC-00-01-0000-001 PULSE BEACON, MAGNETRON	COMPOSITE-FACTORY	1400 000001	FACTORY	YES NO	GENERAL ELECTRIC MC IC 76418476-4
FAILURE MODE-ERRATIC OPERATION-PULSE BEACON MAGNETRON CURRENT INDICATED AN ABRUPT INCREASE AND RECOVERY DURING COMPOSITE TEST.						

GENERAL DYNAMICS  
CONVAIR DIVISION

18 JUN 1963

DIFFICULTIES REVIEW-OUTBACK SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	SIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF TIME DIF	SITE	PRJ OTH	VEHICLE NAME VEHICLE PART NO	
							0000000
	SYSTEM EFFECT-ERRATIC OPERATION-PULSE BEACON CURRENT BECAME ERRATIC DURING TEST.						
	VEHICLE EFFECT-COMPOSITE RESCHEDULED-NUMER OF COMPOSITE MADE.						
	CORRECTIVE ACTION-THE PULSE BEACON WAS REPLACED IN 187242.						
	GUIDANCE-SE MOD 1116-A/B PULSE BEACON	ANAS-0033/AR141-0-1-133/TC-400-01- 133 PULSE BEACON, MAGNETRON	COMPOSITE-FACTORY 980731	FACTORY	YES NO	GENERAL ELECTRIC IC 790931763	0000000
	FAILURE MODE-FAIL DURING OPERATION. THE PULSE BEACON MAGNETRON CURRENT INDICATED AN INCREASE OF 48 PCT. DURING THE TEST. THIS CONDITION WAS CAUSED BY MAGNETRON ARCING.						
	SYSTEM EFFECT-OPERATION TOO HIGH.						
	VEHICLE EFFECT-COMPOSITE RE-SCHEDULED. POST-COMPOSITE TESTING REQUIRED.						
	CORRECTIVE ACTION-NONE. THIS CONDITION WAS CONSIDERED ACCEPTABLE BECAUSE THE PULSE BEACON CURRENT WAS A (GROUND TEST ONLY) CANISTER AND THE PROBLEM DID NOT RECUR ON A POST-COMPOSITE TEST.						
	GUIDANCE-SE MOD 1116-A/B PULSE BEACON	P2-400-04-143 PULSE BEACON, MAGNETRON	COMPOSITE-B FACT 980713	1430 12/ETR	YES NO	GENERAL ELECTRIC IC 794534502	0000000
	FAILURE MODE-OUT OF SPECIFICATION. PULSE BEACON MAGNETRON CURRENT LEVEL WAS 13 PCT 18W LESS THAN THAT MEASURED ON PREVIOUS TESTS.						
	SYSTEM EFFECT-OPERATION TOO LOW. DECREASE IN MAGNETRON CURRENT OUTPUT CAUSED LACK OF CONFIDENCE IN SYSTEM.						
	VEHICLE EFFECT-COMPOSITE DELAYED.						
	CORRECTIVE ACTION-PULSE BEACON REPLACED TO ASSURE SYSTEM CONFIDENCE.						
	GUIDANCE-SE MOD 1116-A/B PULSE BEACON	ANAS-0447/TC-400-01-133 PULSE BEACON 61	COMPOSITE-PROD/REF 980705	1430 12/ETR	YES NO	GENERAL ELECTRIC IC	0000000
	FAILURE MODE-FAIL DURING OPERATION-RE PULSE BEACON WAS REPLACED BECAUSE OF THE LOW TEST. UNSATISFACTORY LOAD TEST RESULTS.						
	SYSTEM EFFECT-UNKNOWN.						
	VEHICLE EFFECT-UNKNOWN.						
	CORRECTIVE ACTION-REPLACED RE PULSE BEACON.						
							0000000

187242

GENERAL DYNAMICS  
COMPAIR DIVISION

18 JUN 1969

DIFFICULTIES REVIEW-GUIDANCE SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	CIP DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
GUIDANCE-SC MOD 1116-A/B PULSE BEACON	AR141-D-1-148/TC-4CD-01-159 PULSE BEACON	COMPOSITE-FACTORY	1890	FACTORY	YES	GENERAL ELECTRIC NO IC 754105106	0994152
FAILURE MODE-ERRATIC OPERATION. CHANNEL 22 OF HIGH-LEVEL RECORDER NO. 1 INDICATED 10 PERCENT INCREASES OF THE VOLTAGE PROPORTIONAL TO PULSE BEACON MAGNETIC CURRENT THREE TIMES DURING THE TEST. THE CAUSATION OF THE INCREASES WAS APPROPRIATELY 75 MILLISECONDS. THESE WERE ATTRIBUTED TO A PULSITY PULSE BEACON TRANSMITTER SECTION.							
SYSTEM EFFECT-OPERATION TOO HIGH.							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-NONE. THE PULSE BEACON INSTALLED WAS FOR GROUND TEST ONLY (STO) AND NO DATA WAS LOST, SO NO CORRECTIVE ACTION WAS CONSIDERED NECESSARY.							
GUIDANCE-SC MOD 1116-A/B PULSE BEACON	AR141-D-1-148/TC-4CD-01-159 GUIDANCE PULSE BEACON	FLIGHT	1210	12/ETN	YES	GENERAL ELECTRIC NO IC MOD111-4	097433
FAILURE MODE-FAIL DURING OPERATION-AT 49 LOUNDS THE PULSE BEACON AGC VOLTAGE DROPPED TO 2.3 VOLTS 0.5 VOLTS BELOW ZERO SIGNAL LEVEL. NO PULSE BEACON RETURNS WERE DETECTED BY RADAR SUGGESTING TO THAT TIME.							
SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS-DUE TO LACK OF TRACK INPUT DATA. THE GUIDANCE COMPUTERS COMPUTATIONS REMAINED IN PHASE 1 (GROUN) AND THE COMPUTER LISTED NO DISCRETE OR STEERING COMMANDS. DISCRETE SIGNALS WERE PROVIDED BY BA CLIP PROVISIONS.							
VEHICLE EFFECT-IMPROPER TRAJECTORY-LACK OF GUIDANCE DISCRETES AND STEERING COMMANDS RESULTED IN EXCESS VELOCITY (20 FT/SEC) AT WINDUP CUTOFF AND LUNAR IMPACT OF THE MANGER SPACECRAFT WAS NOT ACCOMPLISHED.							
CORRECTIVE ACTION-VIBRATION AND SHOCK RESISTANCE OF THE AIRBORNE GUIDANCE PACKAGES WAS INCREASED BY REDESIGNING SAS PLATES.							
GUIDANCE-SC MOD 1116-A/B PULSE BEACON	AR141-D-1-148/TC-4CD-01-142 PULSE BEACON	COMPOSITE-FACTORY	181208	FACTORY	YES	GENERAL ELECTRIC NO IC 754105106	0994152
FAILURE MODE-ERRATIC OPERATION- RECORDER MONITORING PULSE BEACON VOLTAGE PROPORTIONAL TO MAGNETIC CURRENT, INDICATED TWO DROPOUTS OF 9.81 SECONDS DURATION DURING TEST.							
SYSTEM EFFECT-ERRATIC OPERATION- PULSE BEACON HAD INTERMITTENT DROPOUT DURING TEST.							
VEHICLE EFFECT-COMPOSITE RECHARGED. COMPOSITE RE-CHARGE.							
CORRECTIVE ACTION-THE PULSE BEACON PACKAGING WAS REPLACED.							



16 JUN 1966

GENERAL DYNAMICS  
CONVAIR DIVISION

## DIFFICULTIES REVIEW-AIRBORNE SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	317 DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRE OTH	VENDOR NAME VENDOR PART NO	
OUTRANCE-GE MOD 1110-A/B PULSE BEACON	AE81-0276/PC-400-01-111 PULSE BEACON, MAGNETRON	COMPOSITE-FACTORY	1110 810500	FACTORY	YES	GENERAL ELECTRIC	899363
<p>FAILURE MODE-FAIL DURING OPERATION-NUMEROUS REPORTS OF THE PULSE BEACON MAGNETRON CURRENT WERE DISPLAYED ON MIDWATER RECORDER DUE TO A FAULTY PULSE BEACON.</p> <p>SYSTEM EFFECT-ERRATIC OPERATION-INTERMITTANT OPERATION OF THE PULSE BEACON MAGNETRON-ERRATIC OPERATION OF BEACON COULD RESULT IN LOSS OF CHIRPANCE.</p> <p>VEHICLE EFFECT-COMPOSITE RE-SCHEDULED. PULSE BEACON REPLACED AND COMPOSITE RE-AM.</p> <p>CORRECTIVE ACTION-REPLACE FAULTY PULSE BEACON.</p>							
OUTRANCE-GE MOD 1110-A/B PULSE BEACON	AE80-0233/PC-400-01-01 PULSE BEACON	COMPOSITE-FACTORY	049 800307	FACTORY	YES	GENERAL ELECTRIC	898178
<p>FAILURE MODE-FAIL DURING OPERATION. VARIATIONS OF RF POWER WERE INDICATED AND MAGNETRON CURRENT HAD VARIATIONS DUE TO A FAULTY BEACON.</p> <p>SYSTEM EFFECT-ERRATIC OPERATION-FAULTY BEACON CAUSED RF POWER VARIATIONS.</p> <p>VEHICLE EFFECT-COMPOSITE DELAYED OR RESCHEDULED RETURN OF COMPOSITE MADE AFTER REPLACEMENT OF BEACON.</p> <p>CORRECTIVE ACTION-PULSE BEACON REPLACED.</p>							
OUTRANCE-GE MOD 1110-A/B PULSE BEACON	AE81-0276/PC-400-01-23 PULSE BEACON	COMPOSITE-FACTORY	030 800411	FACTORY	NO	GENERAL ELECTRIC	898302
<p>FAILURE MODE-ERRATIC OPERATION-THE PULSE BEACON MAGNETRON CURRENT WAS ERATIC AT 270 SECONDS INDICATING PULSE BEACON IS UNLOCK. THIS RESULTED IN BEACON ERROR COUNTER AND CLEAR ERROR COUNTER READINGS BEING EXCESSIVE. INVESTIGATION INDICATED THIS CONDITION WAS CAUSED BY A TEST EMPIRICAL MALFUNCTION.</p> <p>SYSTEM EFFECT-ERRATIC OPERATION-FAULTY ARE CAUSED ERRATIC OPERATION OF AIRBORNE SYSTEM.</p> <p>VEHICLE EFFECT-COMPOSITE RESCHEDULED.</p> <p>CORRECTIVE ACTION-UNKNOWN.</p>							
OUTRANCE-GE MOD 1110-A/B PULSE BEACON	AE81-0004/PC-300-02-00 PULSE BEACON	COMPOSITE-FACTORY	040 801213	FACTORY	NO	GE	
<p>FAILURE MODE-FAIL DURING OPERATION. A CLEAR ERRORS OCCURRED DURING THE 1000 MESSAGE PROGRAMMED SYNC ERROR TEST. 1 C CLEAR ERRORS TO 1000 MESSAGE WAS ALLOWED, CAUSE OF DISCREPANCY WAS UNKNOWN, HOWEVER, ACCELERATION REGISTER PULSE SPA CING (A801) WAS SUSPECTED.</p> <p>SYSTEM EFFECT-IMPROPER STROBE SIGNALS, TOO MANY CLEAR ERRORS OCCURRED DURING SYNC ERROR TEST.</p>							

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GENERAL ANICS  
COMBAT DIVISION

## DIFFICULTIES REVIEW-OBUSANCE SYSTEM-AIRBORNE

SYSTEM BOS-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	SIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF TIME	SITE DIF OTN	PR1 VEHICLE NAME PART NO
VEHICLE EFFECT-COMPOSITE DELAYED OR MISCHANDLED. AN INTERRUPTED P11 TEST WAS CONDUCTED. CORRECTIVE ACTION-INVESTIGATION DID NOT REVEAL SPACES OF THE PROBLEM, HOWEVER, SINCE THE ACCELERATION RESISTOR WAS SUSPECT, THE PULSE SPACING PROFILE WAS RECALIBRATED. SUBSEQUENTLY 4 SUCCESSFUL TESTS WERE PERFORMED. THE DISCREPANCY WAS CONSIDERED ACCEPTABLE.					
OBUSANCE-GE MOD 1116-9 RECORDER	804/8P193-008/P2-401-00-104 RECORDER	FLIGHT	1960 8502-7	12/ETR 129-2	NO GENERAL ELECTR NO IC
FAILURE MODE-ERRATIC OPERATION-NON-COMPUTER GENERATED STEERING COMMANDS OCCURRED AT 129-2 SECONDS. THESE COMMANDS RESULT FROM EXCESSIVELY NOISY INPUT SIGNALS TO THE PULSE BEACON CAUSED BY CHANGING LOOK ANGLE, PLANE PATTERN ATTENUATION, REFLECTIONS FROM THE BOOSTER SECTION AND OTHER TYPES OF INTERFERENCE. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. BECAUSE OF THE NOISY INPUT SIGNAL TO THE PULSE BEACON, SLIGHT PITCH AND YAW STEERING COMMANDS WERE ERRONEOUSLY GENERATED BY THE VEHICLE-BORNE RECORDER. VEHICLE EFFECT-NONE-BECAUSE OF THE SMALL MAGNITUDE AND SHORT DURATION OF THESE COMMANDS, THE EFFECTS ON THE TRAJECTORY WERE NEGLIGIBLE. CORRECTIVE ACTION-NONE-GE WITH AF350 CONCLUDED THAT THIS WAS NOT A SIGNIFICANT PROBLEM AND NO CORRECTIVE ACTION WAS REQUIRED.					
OBUSANCE-GE MOD 1116-A/9 RECORDER	804/8P194-008/P2-408-00-210 RECORDER	FLIGHT	2300 640728	12/ETR 134	NO GENERAL ELECTR NO IC
FAILURE MODE-ERRATIC OPERATION-NON-COMPUTER GENERATED STEERING COMMANDS OCCURRED AT 129 SECONDS. THESE COMMANDS RESULT FROM EXCESSIVELY NOISY INPUT SIGNALS TO THE PULSE BEACON CAUSED BY CHANGING LOOK ANGLE, PLANE PATTERN ATTENUATION, REFLECTIONS FROM THE BOOSTER SECTION, AND OTHER TYPES OF INTERFERENCE. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. BECAUSE OF THE NOISY INPUT SIGNAL TO THE PULSE BEACON, SLIGHT PITCH AND YAW STEERING COMMANDS WERE ERRONEOUSLY GENERATED BY THE VEHICLE-BORNE RECORDER. VEHICLE EFFECT-NONE-BECAUSE OF THE SMALL MAGNITUDE AND SHORT DURATION OF THESE COMMANDS, THE EFFECTS ON THE TRAJECTORY WERE NEGLIGIBLE. CORRECTIVE ACTION-NONE-GE WITH AF350 CONCLUDED THAT THIS WAS NOT A SIGNIFICANT PROBLEM AND NO CORRECTIVE ACTION WAS REQUIRED.					
OBUSANCE-GE MOD 1116-A/9 RECORDER	804/8P194-011/P2-404-00-210 RECORDER; POWER SUPPLY	COMBAT	2000 640414	12/ETR -7208	YT GENERAL ELECTR NO IC
FAILURE MODE-OUT OF TOLERANCE POWER SUPPLY OPERATION CAUSED ABNORMAL RECORDER OPERATION. SYSTEM EFFECT-ERRATIC OPERATION OF THE OBUSANCE RECORDER. VEHICLE EFFECT-COMPOSITE DELAYED.					

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GENERAL DYNAMICS  
CONVAIR DIVISION

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DIFFICULTIES REVIEW-GUIDANCE SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SIZE TIME DIP	PRI OTH	VEHICLE NAME WORKS PART NO
CORRECTIVE ACTION-CANISTER REPLACES.						
GUIDANCE-GE MOD 1116-A/S DECODER	DEP64-011/78-408-00-803 DECODER	COUNTDOWN	2030 040410	12/ETR ~4	NO NO	GENERAL ELECTRIC NO IC
FAILURE MODE-PREATURE OPERATION. GUIDANCE DISCRETE 10 VELOCITY PACKAGE IGNITION INTERLOCK RECEIVED WHEN NO DISCRETE WAS EXPECTED.						
SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS. GUIDANCE DISCRETE 10 VELOCITY PACKAGE IGNITION INTERLOCK RECEIVED WHEN NO DISCRETE WAS EXPECTED.						
VEHICLE EFFECT-COUNTDOWN DELAYED. 294 MINUTE HOLD AND 40 MINUTE RECYCLE. ABORT CUTOFF RECEIVED.						
CORRECTIVE ACTION-CHANGED TRACK ACQUISITION PROCEDURE.						
GUIDANCE-GE MOD 1116-A/S DECODER	AGUR3-001-8/7C-CO-01-0008-002 DECODER	COMPOSITE-FACTORY	ES00 040107	FACTORY	NO NO	GENERAL ELECTRIC NO IC
FAILURE MODE-FAIL DURING OPERATION. FAILURE DUE TO THE MULTI-CLOSER RELAY MONITOR (AGE) NOT BEING RESET PRIOR TO COMPOSITE START. THE DISCRETE RELAY FUNCTIONS COULD NOT BE ANALYZED.						
SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS.						
VEHICLE EFFECT-COMPOSITE RELAYED. COMPOSITE RETESTING WAS REQUIRED.						
CORRECTIVE ACTION-THE COMPOSITE TEST PROCEDURE WAS REVISED TO INSURE THE RESETTING OF THE MULTI-CLOSER MONITOR PRIOR TO COMPOSITE START.						
GUIDANCE-GE MOD 1116-A/S DECODER	AN141-0-1-1ED/7C-CO-08-120 DECODER	COMPOSITE-FACTORY	ES00 000000	FACTORY	NO NO	GENERAL ELECTRIC NO IC 79-08-00002
FAILURE MODE-FAIL TO CEASE OPERATION AT PRESCRIBED TIME. THE KEEF POSITIVE GUIDANCE STEERING SIGNAL FOR SUSTAINER PITCH WAS APPROXIMATELY 0.5 SECONDS SHORTER THAN EXPECTED. THIS WAS CAUSED BY FAULTY FLIGHT CONTROL TEST PROGRAMMER TAPE.						
SYSTEM EFFECT-OPERATION TOO LONG. SUSTAINER PITCH COMMAND LASTED 0.5 SECONDS TOO LONG. CAUSED BY FAULTY TEST TAPES.						
VEHICLE EFFECT-COMPOSITE RECOMMENDED-COMPOSITE REMAIN.						
CORRECTIVE ACTION-PROGRAMMER TAPES WERE REPLACED.						

GENERAL DYNAMICS  
COMPAIR DIVISION

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DIFFICULTIES REVIEW-AIRSPACE SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	BIP DATA SOURCE PART NUMBER	VEHICLE DATE BIP	SITE TIME BIP	VEHICLE NAME VEHICLE PART NO	VEHICLE NAME VEHICLE PART NO
AIRSPACE-GE MOD 1110-A/S RECODER	ARI41-B-1-121/PC-400-01-121 RECODER	COMPOSITE-FACTORY	1210 011204	FACTORY	NO GENERAL ELECTRIC NO IC	NO GENERAL ELECTRIC NO IC
<p>FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. CHANNEL 21 OF HIGH-LEVEL RECODER NO-2, MONITORING AIRSPACE DISCRETE RELAY PICK-UP TIME, WAS NOT RECORDED DURING THE COMPOSITE. AGE WAS NOT WENT TO MONITOR THIS FUNCTION.</p> <p>SYSTEM EFFECT-NONE.</p> <p>VEHICLE EFFECT-COMPOSITE RE-SCHEDULED. POST-COMPOSITE TESTING REQUIRED.</p> <p>CORRECTIVE ACTION-THE AGE WAS REWOUND TO MONITOR THESE FUNCTIONS ON CHANNEL 21.</p>						
AIRSPACE-GE MOD 1110-A/S RECODER	A481-0179/PC-400-05-117 RECODER	COMPOSITE-J FACT	1170 011106	12/ETR	YES GENERAL ELECTRIC NO IC	YES GENERAL ELECTRIC NO IC
<p>FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. LOOP TEST WAS NO-GO DUE TO DIFFICULTIES WITH THE AIRSPACE RECODER. NO COMMANDS SENT.</p> <p>SYSTEM EFFECT-OPERATION DOES NOT START. NO AIRSPACE DISCRETE WERE SENT TO THE FLIGHT CONTROL SYSTEM.</p> <p>VEHICLE EFFECT-COMPOSITE DELAYED 45 MINUTES.</p> <p>CORRECTIVE ACTION-RECODER REMOVED AND REPLACED. CORRECTIVE ACTION ON RECODER UNKNOWN.</p>						
AIRSPACE-GE MOD 1110-A/S RECODER	A481-0278/PC-400-05-119 FLIP-FLIP	COMPOSITE-FACTORY	1190 011023	FACTORY	NO G-E. NO 79424000	NO G-E. NO 79424000
<p>FAILURE MODE-FAIL DURING OPERATION-IN UNEXPECTED YAW STEERING SIGNAL CAUSED RELATIVE TURNING AT 117 SECONDS OF YES T. A FLIP-FLIP SWITCH IN THE MESSAGE GENERATION PORTION OF THE AIRSPACE CHECKOUT SET WAS FOUND TO BE DEFECTIVE.</p> <p>SYSTEM EFFECT-IMPROPER ANALOG SIGNALS-RECODER OUTPUT WAS IMPROPER BECAUSE OF FAULTY MESSAGE GENERATION IN AGE.</p> <p>VEHICLE EFFECT-COMPOSITE RE-SCHEDULED. REMOVAL OF COMPOSITE WAS MADE.</p> <p>CORRECTIVE ACTION-FLIP-FLIP WAS REPLACED.</p>						
AIRSPACE-GE MOD 1110-A/S RECODER	A481-0180/PC-400-05-117 RECODER	COUNTDOWN	1170 011019	12/ETR	NO GENERAL ELECTRIC NO IC	NO GENERAL ELECTRIC NO IC
<p>FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME - SEPARATION DISCRETE NOT RECEIVED BY AUTOPILOT PROGRAMMER.</p> <p>SYSTEM EFFECT-IMPROPER DISCRETE SIGNAL.</p> <p>VEHICLE EFFECT-COUNTDOWN ADJUSTED AND RE-SCHEDULED. 90 MINUTE HOLD WAS INSUFFICIENT TIME TO CORRECT PROBLEM TO MEET L AERONAUTIC.</p>						

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GENERAL DYNAMICS  
COMPAIR DIVISION

## DIFFICULTIES REVIEW-GUIDANCE SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	BIP DATA SOURCE PART NUMBER	VEHICLE DATE BIP	SITE TIME BIP	PRO OTH	VEHICLE NAME VEHICLE PART NO	
CORRECTIVE ACTION-UNKNOWN.							
GUIDANCE-DE MOD 1116-A/B DECODER	AE81-0107/PC-400-01-111 DECODER	COMPOSITE-PCB/SPL	111D 010716	12/ETR -18700	YES NO IC	GENERAL ELECTRIC	009829
FAILURE MODE-FAIL DURING OPERATION. FOUR TESTS OF THE LOOP TEST WERE NO-GO DUE TO DECODER PROBLEMS.							
SYSTEM EFFECT-ERRATIC OPERATION. FOUR NO-GO INDICATIONS WERE RECEIVED DURING THE LOOP TEST.							
VEHICLE EFFECT-COMPOSITE DELAYED. COUNT DOWN HOLD FOR 154 MTR AND ADJUST DUE TO SEVERAL PROBLEMS.							
CORRECTIVE ACTION-REPLACED DECODER.							
GUIDANCE-DE MOD 1116-A/B DECODER	AE81-0107/PC-400-01-083 DECODER	COMPOSITE-FACTORY	980 010714	FACTORY	NO NO IC	GENERAL ELECTRIC	000611
FAILURE MODE-FAIL DURING OPERATION-ERRATIC PITCH AND YAW STEERING COMMANDS WERE EVIDENT DURING THE TEST DUE TO IMPROPER SETUP OF THE GUIDANCE SYSTEM TEST TAPES (AGE).							
SYSTEM EFFECT-ERRATIC OPERATION.							
VEHICLE EFFECT-COMPOSITE RESCHEDULED. COMPOSITE RETEST WAS REQUIRED.							
CORRECTIVE ACTION-TEST TAPES WERE PROPERLY INSTALLED AND ANOTHER COMPOSITE TEST PERFORMED.							
GUIDANCE-DE MOD 1116-A/B DECODER	AE81-0107/PC-400-02-113 DECODER	COMPOSITE-FACTORY	1150 010501	FACTORY	NO NO IC	GENERAL ELECTRIC	000703
FAILURE MODE-ERRATIC OPERATION. EXTREMELY PITCH COMMANDS WERE INDICATED DURING THE CONFIDENCE CHECKS AND ALSO DURING THE PROGRAMMED PORTION OF THE TEST. IT WAS BELIEVED THAT FAULTY 80 CPS AND PWR REGULATION CAUSED UNSTABLE OPERATION OF THE TEST EQUIPMENT. ALSO PULSE BEACON MAGNETRON CURRENT PROPORTIONS WERE INDICATED.							
SYSTEM EFFECT-ERRATIC OPERATION. UNSTABLE GROUND TEST EQUIPMENT CAUSED ERRATIC OPERATION OF A/B PULSE BEACON OUTPUT.							
VEHICLE EFFECT-COMPOSITE RESCHEDULED. COMPOSITE TEST HAS TO BE REIN.							
CORRECTIVE ACTION-NOT KNOWN.							
GUIDANCE-DE MOD 1116-A/B DECODER	AE81-0107/PC-400-01-114 DECODER, AMPLIFIER	COMPOSITE-FACTORY	1149 010604	FACTORY	NO NO IC	GENERAL ELECTRIC	
FAILURE MODE-FAIL DURING OPERATION-FREQUENCY STABLE AMPLIFIER WAS MISADJUSTED CAUSING PITCH AND YAW CHECKS TO BE NO GOOD OUT.							
SYSTEM EFFECT-ERRATIC OPERATION-FREQUENCY STABLE AMPLIFIER IN CW SIGNAL GENERATOR WAS NOT PROPERLY ADJUSTED CAUSING							

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GENERAL STRATICS  
COMPARISON DIVISION

## DIFFICULTIES DETECTED-ORANGE SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	SIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRO VEHICLE PART NO	VEHICLE NAME VEHICLE PART NO
BEACON TO BE EMITTED.						
VEHICLE EFFECT-COMPOSITE REBALANCED-COMPOSITE RETURN AFTER READJUSTMENT OF TEST EQUIPMENT.						
CORRECTIVE ACTION-TEST EQUIPMENT RE-ADJUSTED.						
000000						
GUIDANCE-GE MOD 1116-A/S AERD-0007/PC-400-01-110 DECODER, AMPLIFIER						
COMPOSITE-FACTORY 1100 FACTORY NO GENERAL ELECTRIC 410018 NO IC						
FAILURE MODE-FAILED TO CEASE OPERATION AT PRESCRIBED TIME, DROPOUT OF RELAY NO 6 WAS NOT APPARENT ON RECORDER. THE DIFFERENTIAL AMPLIFIER IN THE COMPARATOR DRIVER WAS FOUND TO BE IMPROPERLY BALANCED.						
SYSTEM EFFECT-OPERATION TOO LONG. RELAY NO 6 APPARENTLY FAILED TO DROP OUT.						
VEHICLE EFFECT-COMPOSITE DELAYED-ADDITIONAL TESTING AT SYSTEMS LEVEL TO ISOLATE TROUBLE TO THE TEST EQUIPMENT.						
CORRECTIVE ACTION-REBALANCED DIFFERENTIAL AMPLIFIER.						
000000						
GUIDANCE-GE MOD 1116-A/S AERD-0009/PC-400-02-01 DECODER						
COMPOSITE-FACTORY 610 FACTORY YES GENERAL ELECTRIC 000000 NO IC						
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. THE ORANGE SYSTEM DID NOT GENERATE DISCRETES TO THE AUTOPILOT.						
SYSTEM EFFECT-OPERATION DOES NOT START. DECODER FAILED TO TRANSMIT DISCRETES TO FLIGHT CONTROL SYSTEM.						
VEHICLE EFFECT-COMPOSITE DESYNCHRONIZED. RETURN OF COMPOSITE REMAINED AFTER REPLACEMENT OF DECODER.						
CORRECTIVE ACTION-DECODER REPLACED.						
000000						
GUIDANCE-GE MOD 1116-A/S AERD-0100/PC-400-03-04 DECODER						
COMPOSITE-FACTORY 540 FACTORY NO GENERAL ELECTRIC 000000 NO IC						
FAILURE MODE-OUT OF TOLERANCE. DISCRETE MESSAGE COUNT INDICATED THAT DISCRETE RELAYS 2 AND 3 (USED AND USED MOD P) CUE UP ON FIVE DISCRETE MESSAGE COUNTS. I.E. ATTRIBUTED THIS CONDITION TO THE DROP COUNTER UNIT IN THE TEST SET. C ONDITION FAILED TO APPEAR DURING POST COM-101E TESTING.						
SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS. DISCRETE RELAYS PICKED UP ON A COUNT OF FIVE INSTEAD OF THE SPEC IFIED 4 OR GREATER COUNT.						
VEHICLE EFFECT-COMPOSITE DELAYED.						
CORRECTIVE ACTION-NONE.						
000000						

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GENERAL UNICS  
COMBAT DIVISION

## DIFFICULTIES REVIEW-AVOIDANCE SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP TIME	SITE DIP TIME	PRG OWN	VEHICLE NAME VEHICLE PART NO
AVOIDANCE-CE MOD 1118-A/B RECODER	ADN-87-346/PC-400-01-04 RECODER	COMPOSITE-FACTORY	900	FACTORY	YES	GENERAL ELECTRIC NO IC
FAILURE MODE-ERRATIC OPERATION-THE RATE DISABLE FUNCTION DID NOT OCCUR. PULSE BEACON MAGNETIC CURRENT DID NOT REACT TO ZERO WHEN FALSE ADDRESS WAS PROGRAMMED. ERRATIC RECODER PITCH AND YAW OUTPUTS OCCURRED DURING THE TIME OF FAILURE AND BEACON PROGRAMMING.						
SYSTEM EFFECT-ERRATIC OPERATION-ERRATIC PITCH AND YAW OUTPUTS CAME FROM RECODER WHEN NO OUTPUT WAS EXPECTED.						
VEHICLE EFFECT-COMPOSITE REPROGRAMMED.						
CORRECTIVE ACTION-REPLACED RECODER. A SATISFACTORY SYSTEM TEST WAS RUN AFTER THE RECODER WAS REPLACED. RETURN OF COM POSITE WAS SATISFACTORY.						
AVOIDANCE-CE MOD 1118-A/B RECODER	ADN-87-346/PC-400-01-04 RECODER	COMPOSITE-FACTORY	900	FACTORY	NO	GENERAL ELECTRIC NO IC
FAILURE MODE-FAIL DURING OPERATION. THE RECODER EMITTED AN EXTRANEUS PITCH OUTPUT DURING THE PROGRAMMED YAW PORT ION OF THE GUIDANCE STEERING COMMANDS TO THE AUTOPILOT SYSTEM. INCORRECTLY PULSED GAGE GUIDANCE SYSTEM TEST TAPED ME AS THE CAUSE OF THE PROBLEM						
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.						
VEHICLE EFFECT-COMPOSITE REPROGRAMMED. RE-SCHEDULED. A PARTIAL COMPOSITE RETEST WAS PERFORMED.						
CORRECTIVE ACTION-UNKNOWN. PROBABLY REPLACED GAGE GUIDANCE TEST TAPES.						
AVOIDANCE-CE MOD 1118-A/B RECODER	ADN-87-464/PC-400-01-01 STANING DISCRETE RELAY NO-1	COMPOSITE-FACTORY	910	FACTORY	NO	GENERAL ELECTRIC NO IC
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. THE STANING DISCRETE RELAY NO-1 ACTIVATED AT 90.2 SECONDS AND DEAC TIVATED AT 94.3 SECONDS. THE RATE DISABLE FUNCTION WAS EXPECTED AT THIS TIME. THIS PROBLEM WAS DUE TO A FALSE MESSAGE E WHICH WAS INCORRECTLY SET UP IN THE GAGE ACCELERATION REGISTER PRIOR TO THE COMPOSITE TEST.						
SYSTEM EFFECT-IMPROPER DISCRETE SIGNAL. THE STANING DISCRETE MESSAGE WAS TRANSMITTED IN PLACE OF THE RATE DISABLE F UNCTION. MESSAGE SET UP IN GAGE IMPROPERLY.						
VEHICLE EFFECT-COMPOSITE REPROGRAMMED. COMPOSITE RE-RAN.						
CORRECTIVE ACTION-UNKNOWN.						
AVOIDANCE-CE MOD 1118-A/B RECODER	ADN-87-464/PC-400-01-04 RECODER	COMPOSITE-FACTORY	910	FACTORY	YES	GENERAL ELECTRIC NO IC
FAILURE MODE-OUT OF TOLERANCE. THE AMPLITUDE OF THE NEGATIVE ONE-HALF YAW RECODER OUTPUT WAS OUT OF TOLERANCE.						

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GENERAL  
COMBAT DIVISION

DIFFICULTIES REVIEW-GUIDANCE SYSTEM-11500000

SYSTEM	TEST/REPORT NUMBER	TEST/REPORT NUMBER	VEHICLE DATE	DATE	DATE	DATE	DATE	DATE	DATE
1150-SYSTEM	1150-SYSTEM	1150-SYSTEM	1150-SYSTEM	1150-SYSTEM	1150-SYSTEM	1150-SYSTEM	1150-SYSTEM	1150-SYSTEM	1150-SYSTEM
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS-VEHICLE SIGNAL INPUTS TO THE AUTOPILOT WERE NOT THE EXPECTED VALUES.	VEHICLE EFFECT-COMPOSITE DELAYED OR MISCHRONED. AN INTEGRATED RETEST WAS REQUIRED.	CONNECTIVE ACTION-PITCH AND YAW DECODER OUTPUTS WERE RECALIBRATED.	VEHICLE EFFECT-IMPROPER ANALOG SIGNALS-VEHICLE SIGNAL INPUTS TO THE AUTOPILOT WERE NOT THE EXPECTED VALUES.	VEHICLE EFFECT-COMPOSITE DELAYED OR MISCHRONED. AN INTEGRATED RETEST WAS REQUIRED.	CONNECTIVE ACTION-PITCH AND YAW DECODER OUTPUTS WERE RECALIBRATED.	VEHICLE EFFECT-IMPROPER ANALOG SIGNALS-VEHICLE SIGNAL INPUTS TO THE AUTOPILOT WERE NOT THE EXPECTED VALUES.	VEHICLE EFFECT-COMPOSITE DELAYED OR MISCHRONED. AN INTEGRATED RETEST WAS REQUIRED.	CONNECTIVE ACTION-PITCH AND YAW DECODER OUTPUTS WERE RECALIBRATED.	VEHICLE EFFECT-IMPROPER ANALOG SIGNALS-VEHICLE SIGNAL INPUTS TO THE AUTOPILOT WERE NOT THE EXPECTED VALUES.
GUIDANCE-DE MOD 1110-4/8 ANTENNA AND WAVEGUIDE	374-3-00-38 WAVEGUIDE	FLIGHT	750 600210	ADME-1 83	YES NO	NO NO	NO NO	NO NO	NO NO
FAILURE MODE-A DEFICIENCY OF TRACK SIGNAL WAS NOTED AT THE MOD 111 GROUND STATION APPARENTLY DUE TO MECHANICAL FAILURE OF THE WAVEGUIDE BETWEEN THE PULSE DUPLICATOR AND THE ANTENNA.	SYSTEM EFFECT-OPERATION TOO LOW GUIDANCE OBJECTIVES FOR THE REMAINDER OF THE FLIGHT WERE ACHIEVED AT SIGNAL LEVELS APPROXIMATELY 20DB BELOW NORMAL.	VEHICLE EFFECT-NONE.	CONNECTIVE ACTION-OPEN-ACTION GROUP IS THE EIGHTH TEST WAVE-NAVS.	FAILURE MODE-ERRATIC OPERATION. NON-COMPUTER GENERATED STEERING COMMANDS OCCURRED AT 100 AND 130 SECONDS. THESE COMMANDS RESULT FROM EXCESSIVELY NOISY INPUT SIGNALS TO THE PULSE BEACON CAUSED BY CHANGING LOOK ANGLE. SLANT PATTERN A STEADY STATE. REFLECTIONS FROM THE BOOSTER SECTION AND OTHER TYPES OF INTERFERENCE.	SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. BECAUSE OF THE NOISY INPUT SIGNAL TO THE PULSE BEACON, SLIGHT PITCH AND YAW STEERING COMMANDS WERE ERRONEOUSLY GENERATED BY THE WAVEGUIDE DECODER.	VEHICLE EFFECT-NONE. BECAUSE OF THE SMALL MAGNITUDE AND SHORT DURATION OF THESE COMMANDS, THE EFFECTS ON THE TRACKING WERE NEGLECTIBLE.	CONNECTIVE ACTION-NONE. G.E. WITH AFMS CONCLUDED THAT THIS WAS NOT A SIGNIFICANT PROBLEM AND NO CORRECTIVE ACTION WAS REQUIRED.	GUIDANCE-DE MOD 1110-4/8 ANTENNA AND WAVEGUIDE	374-3-00-38 WAVEGUIDE
FAILURE MODE-ERRATIC OPERATION. LOOP TESTS FOR AGMA PRIMARY TUNING AND SURROUND CHECKS WERE UNSATISFACTORY IN A FEW PLACES. INDICATIONS OF EXCESSIVE CLOSURES OF BEACON RELAYS 2 AND 3 WERE RECEIVED.	SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS.	VEHICLE EFFECT-COMPOSITE DELAYED AT 1-00 FOR APPROXIMATELY 20 MINUTES.	CONNECTIVE ACTION-THEME WAVEGUIDE/ACTIVITY LOOP TEST RESULTS WERE BELIEVED TO BE DUE TO PROPAGATION EFFECTS. THE ATTENUATION IN THE PARALLEL ANTENNA WAS REDUCED AND REMOVABLE SECTIONS OF THE POWER LOSS WERE REMOVED. A SECOND LOOP TEST	VEHICLE EFFECT-NONE.	CONNECTIVE ACTION-NONE.	VEHICLE EFFECT-NONE.	CONNECTIVE ACTION-NONE.	VEHICLE EFFECT-NONE.	CONNECTIVE ACTION-NONE.



GENERAL DYNAMICS  
COMNAV DIVISION

16 JUN 1968

DIFFICULTIES REVIEWED-CONTINUED SYSTEM-AIRBORNE

SYSTEM	TEST/REPORT NUMBER	FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	DATE TIME DIP	VEHICLE MAKE	VEHICLE PART NO
Y WAS CONDUCTED WITH SATISFACTORY RESULTS.							
GUIDANCE-RE NOB 1116-A/S	PE-400-01-179	ANTENNA AND WAVEGUIDE	COMPOSITE-B FACT	1790	18/6/78	YES	GENERAL ELECTRIC NO IC
FAILURE MODE-EMERGENCY OPERATION. DURING THE LOOP TEST DIFFICULTY WAS EXPERIENCED IN MAINTAINING A SOLID GUIDANCE TRACK LOCK. THE LOOP TEST WAS REPEATED AND SIMILAR TRACK LOCK DIFFICULTIES WERE OBSERVED. THE REASON FOR THE TRACK LOCK DIFFICULTIES COULD NOT BE DETERMINED BUT COULD HAVE BEEN CAUSED BY REMOVAL ON THE TOWER AND/OR MULTIPATH CONDITIONS.							
SYSTEM EFFECT-EMERGENCY OPERATION.							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-A POST FACT LOOP TEST WAS PERFORMED AND NO TRACK LOCK PROBLEMS WERE OBSERVED.							
GUIDANCE-RE MARK 11-A/S	80C/80F83-007/A/J-701-80-7113	COUNTERDOWN	7113	2-A/PALC NO	GENERAL ELECTRIC NO IC	801108	~0000
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. COORDINATION PROBLEM BETWEEN GUIDANCE GROUND STATION AND BLOCKHOUSE CAUSED LOOP TEST ABORT. TRACK ANALYST DID NOT PROGRAM SUFFICIENT AMOUNT OF ANTENNA SWEEPING TO INITIATE STEERING TO LOCK OF LOOP TEST.							
SYSTEM EFFECT-OPERATION DOES NOT START. BECAUSE OF COORDINATION PROBLEM, REMAINED LOOP TEST START REMAINING WAS NOT SATISFIED.							
VEHICLE EFFECT-NONE. LOOP TEST ABORTED BUT NO HOLD CALLED.							
CORRECTIVE ACTION-NONE.							
GUIDANCE-RE MARK 11-A/S	AGURS-001-A/S	DATE BEACON	COMPOSITE-FACTORY	7816	FACTORY	NO	GENERAL ELECTRIC NO IC
FAILURE MODE-OUT OF EXPECTED TEST VALUE. THE DATE BEACON SENSITIVITY DECREASED DURING PREPARATION FOR COMPOSITE TEST WAS 3 DBM LESS THAN NOTED DURING SYSTEM LEVEL TESTING. POSSIBLY DUE TO MISINTERPRETATION OF CALIBRATION GRAPHS, USE OF DIFFERENT SO DOW PAPER, OR ADJACENT SOX OPERATION ALLOWING BY LEAKAGE.							
SYSTEM EFFECT-OPERATION TOO LOW.							
VEHICLE EFFECT-COMPOSITE DELAYED OR RECORDED.							
CORRECTIVE ACTION-RECHECKS VERIFIED SATISFACTORY SENSITIVITY.							



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GENERAL DYNAMICS  
COMPAIR DIVISION

DIFFICULTIES REVIEW-SURVANCE SYSTEM-AIRBORNE

SYSTEM	TEST/REPORT NUMBER	DIP DATA SOURCE	VEHICLE DATE	DATE	TIME	DATE	VEHICLE NAME
346-SYSTEM	FAILED COMPONENT NAME	PART NUMBER	DATE	TIME	DATE	TIME	VEHICLE NAME
GUIDANCE-CE MARK 11-A/S	AI-440-08-210	COMPOSITE-7700/0PL	2120	241128	A-1/MTZ	YES	GENERAL ELECTRIC
DATE BEACON	DATE BEACON					NO	IC
FAILURE MODE-ERRATIC OPERATION OF THE DATE BEACON OCCURRED.							
SYSTEM EFFECT-OPERATION TOO LOW. DATE BEACON BY OUTPUT POWER WAS LOW.							
VEHICLE EFFECT-COMPOSITE DELAYED.							
CORRECTIVE ACTION-DATE BEACON REPLACED.							
GUIDANCE-CE MARK 11-A/S	AI-440-01-300/	COMPOSITE-7700/0PL	2000	241101	A-1/MTZ	YES	GENERAL ELECTRIC
DATE BEACON	DATE BEACON					NO	IC
FAILURE MODE-ERRATIC OPERATION. DATE BEACON VOLTAGE PROPORTIONAL TO DATE BEACON BY POWER OUTPUT VARIED FROM 3.63 TO 4.2 VDC.							
SYSTEM EFFECT-ERRATIC OPERATION.							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-DATE BEACON REPLACED.							
GUIDANCE-CE MARK 11-A/S	GC/7244-084-041028-LA-770-01-710	COMPOSITE-7700/0PL	7103	241102	2-3/PMIC	YES	GENERAL ELECTRIC
DATE BEACON	DATE BEACON					NO	IC
FAILURE MODE-FAIL DURING OPERATION. UNSTABLE DATE BEACON DETECTOR SLEEP VOLTAGE. A ONE VOLT POSITIVE INCREASE FROM THE DC LEVEL WAS ESTABLISHED WHEN NO SHIFT IN DC LEVEL IS NORMAL WHILE SLEEPING.							
SYSTEM EFFECT-ERRATIC OPERATION.							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-THE MARK 2 AIRBORNE DATE BEACON WAS REPLACED.							
GUIDANCE-CE MARK 11-A/S	DM/813/L5-051-08-330	COURTROOM	3300	240519	2-3/PMIC	YES	GENERAL ELECTRIC
DATE BEACON	DATE BEACON; PHASE DETECTOR					NO	IC
FAILURE MODE-OUT OF TOLERANCE. THE PHASE DETECTOR OUTPUT SIGNAL WAS DEGRADED AND THE WP INDICATED 1-2 VDC AFTER THE APPLICATION OF POWER AND REMAINED AT THIS LEVEL DURING THE LOOP TEST. THIS MEASUREMENT INDICATED 2.9 VDC DURING ALL P REVISION TESTS.							
SYSTEM EFFECT-OPERATION TOO LOW. PEAK VOLTAGE OUTPUT LOW TO THE TRANSMITTER PHASE DETECTOR.							
VEHICLE EFFECT-NONE.							

GENERAL - JMWCS  
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19 JUNE 1994

SIMPLIFIED REVIEW-GUIDANCE SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRE CTM	VENDOR NAME VENDOR PART NO
CORRECTIVE ACTION-BEACON REPLACED. FAILURE COULD NOT BE DUPLICATED ON REMOVED PART.						
GUIDANCE-GE MARK 11-A/B RATE BEACON	86A/87F84-081/L3-401-06-380 RATE BEACON	FLIGHT	1900 840319	2-8/PALC NO 18	NO	NO IC
FAILURE MODE-ERRATIC OPERATION. THE RATE BEACON TRANSMIT PHASE DETECTOR MEASUREMENT INDICATED AN ABNORMAL VARIATION OF OUTPUT BETWEEN 18 SECONDS AND BECO. IT COULD NOT BE DEFINITELY ESTABLISHED WHETHER THIS WAS A SYSTEM OR INSTRUMENTATION ANOMALY.						
SYSTEM EFFECT-NONE.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-NONE. THE VARYING OUTPUT WAS NOT DETRIMENTAL TO RATE BEACON OPERATION.						
GUIDANCE-GE MARK 11-A/B RATE BEACON	ZD84-06/04108/L3-480-01-226 RATE BEACON	COMPOSITE-PRO/DPL	2926 840308	2-8/PALC YES NO IC	YES	GENERAL ELECTRIC 764181363
FAILURE MODE-OUT OF TOLERANCE. ABNORMAL VOLTAGE VARIATIONS WERE NOTED DURING LOOP TESTS.						
SYSTEM EFFECT-ERRATIC OPERATION. RATE BEACON VOLTAGES PROPORTIONAL TO THE RF POWER OUTPUT AND THE TRANSMITTER PHASE DETECTOR WERE ERRATIC.						
VEHICLE EFFECT-COMPOSITE DELAYED.						
CORRECTIVE ACTION-THE RATE BEACON WAS REPLACED.						
GUIDANCE-GE MARK 11-A/B RATE BEACON	A383-0002-2246/PC-00-08-8817-004 RATE BEACON	COMPOSITE-FAC/PORT	2840 850613	FACTORY YES NO IC	YES	GENERAL ELECTRIC 764181364
FAILURE MODE-FAIL DURING OPERATION - THE RATE BEACON REMAINED UNLOCKED AFTER POWER CHANGEOVER TO INTERNAL.						
SYSTEM EFFECT-OPERATION STARTS TOO LATE. VEHICLE EFFECT-COMPOSITE OR RECORDED - PARTIAL COMPOSITE RETEST WAS PERFORMED.						
VEHICLE EFFECT-COMPOSITE OR RECORDED - PARTIAL COMPOSITE RETEST WAS PERFORMED.						
CORRECTIVE ACTION-THE RATE BEACON WAS REPLACED.						
GUIDANCE-GE MARK 11-A/B RATE BEACON	60/403-6380/ED/AL2-401-00-136 RATE BEACON COAXIAL CABLE	FLIGHT	1900 850612	PALC1-8 YES NO IC	YES	GENERAL ELECTRIC
FAILURE MODE-FAIL DURING OPERATION. THE RATE BEACON SIGNAL RECEIVED AT THE GROUND GUIDANCE STATION WAS LOST AT LEFT OFF.						
SYSTEM EFFECT-OPERATION STOPS PREMATURELY. THE BEACON SIGNAL WAS NEVER RECEIVED AT THE GROUND STATION.						

GENERAL AMICB  
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**DIFFICULTIES WITH EVIDENCE 073714-A1800PHE**

SISTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE D.A.'S DIP	SITE TIME DIP	PRE OTH	VENOON NAME VENOON PART NO
VEHICLE EFFECT-NONE. FLIGHT WAS PREMATURELY TERMINATED DUE TO THE HYDRAULIC PROBLEM SUCH THAT EFFECTS OF LOSS OF GUIDANCE RATE DATA WAS NOT EVIDENT.						
CORRECTIVE ACTION-THE RATE BEACON COAXIAL CABLE INSTALLATION WAS REDESIGNED AND VIBRATION IMPROVEMENTATION ON THE RATE AND PULSE BEACONS WAS ASSESSED.						
GUIDANCE-GE MARK II-A/B RATE BEACON	ASUS-001-11/7C-CO-03-C071-001 RATE BEACON	COMPOSITE-FACTORY 607508	7101 607508	FACTORY NO IC	YES NO IC	YES GENERAL ELECTRIC 764191894
FAILURE MODE-FAILURE DURING OPERATION - RATE BEACON OUTPUT POWER OSCILLATED DURING THE TEST INDICATING AN UNLOCKED CONDITION.						
SYSTEM EFFECT-EMATIC OPERATION - UNLOCK CONDITION.						
VEHICLE EFFECT-COMPOSITE RE-SCHEDULES, SYSTEM LEVEL AND COMPOSITE RETEST REQUIRED.						
CORRECTIVE ACTION-REMOVED AND REPLACE RATE BEACON.						
GUIDANCE-GE MARK II-A/B RATE BEACON	ASUS-002-750/7C-CO-01-0008-003 RATE BEACON-CCAX	COMPOSITE-FACTORY 608968	750 608968	FACTORY NO IC	YES NO IC	YES GENERAL ELECTRIC
FAILURE MODE-OUT OF TOLERANCE. THE RATE BEACON SENSITIVITY WAS 0.8 DB BELOW THE EXPECTED VALUE.						
SYSTEM EFFECT-OPERATION 120 LOW.						
VEHICLE EFFECT-COMPOSITE RE-SCHEDULES. POST-COMPOSITE TESTING WAS REQUIRED.						
CORRECTIVE ACTION-A FAULTY COAXIAL CABLE FITTING WAS REPLACED.						
GUIDANCE-GE MARK II-A/B RATE BEACON	ASUS-003-750/7C-CO-01-0008-003 RATE BEACON	COMPOSITE-FACTORY 608968	750 608968	FACTORY NO IC	YES NO IC	YES GENERAL ELECTRIC
FAILURE MODE-FAIL DURING OPERATION. THE RATE BEACON RF POWER OUTPUT WAS LOW FOR 4 MINUTES 35.7 SECONDS AFTER GUIDANCE POWER WAS INITIATED.						
SYSTEM EFFECT-OPERATION STOPS FROM 1. LOSS OF GUIDANCE CONTROL.						
VEHICLE EFFECT-COUNTDOWN ABORTED / NO RE-SCHEDULES.						
CORRECTIVE ACTION-REMOVED AND REPLACE RATE BEACON.						

**DATE SENT**

GENERAL DYNAMICS  
COMPAIR DIVISION

18 JUN 1966

DIFFICULTIES REVIEW--GUIDANCE SYSTEM--AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIF TIME	SITE DIF TIME	PRI DIF TIME	VEHICLE NAME VEHICLE PART NO
GUIDANCE-GE MARK II-A/B RATE BEACON	DA579/LI-4MO-02-173 GUIDANCE RATE BEACON	COMPOSITE-PRD/DPL	1069 010901	1-1/PALE	YES NO	GENERAL ELECTRIC IC
FAILURE MODE--ERRATIC OPERATION. RATE BEACON OUTPUT POWER WAS ERRATIC.						
SYSTEM EFFECT--ERRATIC OPERATION.						
VEHICLE EFFECT--NONE.						
CORRECTIVE ACTION--CANISTER REPLACED.						
GUIDANCE-GE MARK II-A/B RATE BEACON	DA295/PD-4MO-01-09 RATE BEACON	COMPOSITE-PRD/DPL	200 001212	1-3/PALE	YES NO	GENERAL ELECTRIC IC
FAILURE MODE--GUIDANCE CANISTER FAILED TO OPERATE AT PRESCRIBED TIME.						
SYSTEM EFFECT--ERRATIC OPERATION. GROUND GUIDANCE STATION COULD NOT LOCK ON MISSILE DURING LOOP TEST.						
VEHICLE EFFECT--COMPOSITE DELAYED.						
CORRECTIVE ACTION--REPLACED CANISTER.						
GUIDANCE-GE MARK II-A/B PULSE BEACON	50C/ZDMS-031-2A1002-7A-7MO-01-71 PULSE BEACON	COMPOSITE-PRD/DPL	7113 001102	1-4/PALE	YES NO	GENERAL ELECTRIC IC 0400000003
FAILURE MODE--FAIL DURING OPERATION. DATA INDICATED PULSE BEACON MESSAGE ERRORS DURING THE DPL. THESE WERE ALSO VERIFIED BY THE GROUND GUIDANCE STATION.						
SYSTEM EFFECT--ERRATIC OPERATION.						
VEHICLE EFFECT--NONE.						
CORRECTIVE ACTION--PULSE BEACON REPLACED.						
GUIDANCE-GE MARK II-A/B PULSE BEACON	51-4MO-01-123 PULSE BEACON	COMPOSITE-PRD/DPL	1230 000015	1-1/PALE	YES YES	GENERAL ELECTRIC IC 704104705
FAILURE MODE--FAIL TO OPERATE AT PRESCRIBED TIME. GUIDANCE STATION COULD NOT DETECT BEACON TRIGGER FROM BEACON.						
SYSTEM EFFECT--OPERATION DOES NOT START. ERRATIC GUIDANCE SYSTEM OPERATION DURING LOOP TEST.						
VEHICLE EFFECT--COMPOSITE DELAYED.						
CORRECTIVE ACTION--PULSE BEACON REPLACED.						

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BIPPLICITIES REVIEW-GUIDANCE SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP TIME	SITE DIP TIME	PRE DIP	VEHICLE NAME VEHICLE PART NO
GUIDANCE-GE MARK 11-A/B PULSE BEACON	AE91-0098/FC-400-03-100 PULSE BEACON; MAGNETRON	COMPOSITE-FACTORY	1090 811108	FACTORY NO	NO IC	064112799
<p>FAILURE MODE-PARTS DURING OPERATION-A DROP-OUT OF THE PULSE BEACON MAGNETRON CURRENT WAS EXPERIENCED AT THE START OF THE COMPOSITE TEST. DROP-OUT BELIEVED TO BE CAUSED BY LOOSENESS OF THE MEASUREMENT REGISTERS OF THE GROUND EQUIPMENT WHEN THE GUIDANCE FOR RETORNER WAS PROGRAMMED TO START.</p> <p>SYSTEM EFFECT-ERRATIC OPERATION-DROP-OUT OF BEACON WILL CAUSE LOSS OF GUIDANCE TRACKING.</p> <p>VEHICLE EFFECT-COMPOSITE RE-BONDED-POST COMPOSITE TESTING WAS CONDUCTED TO DETERMINE CAUSE. DROP OUT COULD NOT BE REPEATED.</p> <p>CORRECTIVE ACTION-BEACON RETURN TO GENERAL ELECTRIC DEPOT FOR FURTHER TESTING.</p>						
GUIDANCE-GE MARK 11-A/B PULSE BEACON	DAJ79/LJ-040-08-106 PULSE BEACON; MAGNETRON	COMPOSITE-FCO/DFL	1090 810821	1-1/4 P.M.C.	YES	GENERAL ELECTRIC NO IC
<p>FAILURE MODE-ERRATIC OPERATION OF THE PULSE BEACON MAGNETRON CURRENT.</p> <p>SYSTEM EFFECT-ERRATIC OPERATION.</p> <p>VEHICLE EFFECT-MORE.</p> <p>CORRECTIVE ACTION-CANISTER REPLACED.</p>						
GUIDANCE-GE MARK 11-A/B PULSE BEACON	AE90-0749/LJ-400-00-37 PULSE BEACON	FLIGHT	570 801011	P.M.C.-1 0.	YES	GENERAL ELECTRIC NO IC
<p>FAILURE MODE-FAILED DURING OPERATION. TWO POSSIBILITIES OF FAILURE WERE 1. INTERNAL PHYSICAL DAMAGE IN PULSE AND/OR DECODER UNITS CAUSED BY SHOCKS AND A ACCELERATION ASSOCIATED WITH MISSILE L/O AND BOOST PHASE. 2. INTERMITTENT, MIL 5 JAMMING FOR SIGNAL EMANATING FROM MISSILE/VEHICLE COMBINATION.</p> <p>SYSTEM EFFECT-ERRATIC OPERATION. SIGNAL STRENGTH OF BEACON PULSE BETWEEN L/O AND MAJOR PART OF BOOSTER PHASE FLUCTUATED BETWEEN WIDE LIMITS WITH INTERVALS OF COMPLETE DROP-OUT. BY 100 SECONDS THE SIGNAL COMPLETELY DISAPPEARED AND GROUND TRACK SYSTEMS OPERATED IN MEMORY MODE FOR 3 SECONDS AND AT 118 SECONDS WAS BLANKED TO OPTICAL TRACKER. COMPUTER DID NOT GENERATE 2N, 3INCHES OR STEERING COMMANDS. ALL SIGNALS SUPPLIED BY A/P PROG. BACKUP PROVISIONS AND OTHER BACKUP PROVISIONS.</p> <p>VEHICLE EFFECT-MORE. OPERATION OF ATLAS BOOSTER WAS SATISFACTORY IN ACCOMPLISHING ITS MISSION DESPITE THIS FAILURE.</p> <p>CORRECTIVE ACTION-INVESTIGATION CONCERNING WHICH VEHICLE SAVING (ATLAS OR PATLON) WERE RADIATING SPURIOUS SIGNALS PRIOR TO L/O AND DURING BOOST OPERATION. ALSO ASCERTAIN DEGREE OF SUSCEPTIBILITY OF PULSE BEACON AND RADAR EQUIPS. TO INTERFERING RADIATION AT VARIOUS POWER LEVELS.</p>						

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## DIFFICULTIES REVIEW-GUIDANCE SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PR1 OTM	VEHICLE NAME VEHICLE PART NO
GUIDANCE-GE MARK II-A/B PULSE BEACON	DI209/03-4NO-01-23 PULSE BEACON, CONNECTOR	COMPOSITE-FACTORY	35D 600619	3700-3/M TR	YES NO	GENERAL ELECTRIC IC
<p>FAILURE MODE-FAILED TO OPERATE AT PRESCRIBED TIME. LOOSE CONNECTOR CAUSING LOSS OF CONTROL.</p> <p>SYSTEM EFFECT-OPERATION DOES NOT START. GUIDANCE COULD NOT LOCK-ON.</p> <p>VEHICLE EFFECT-COMPOSITE DELAYED.</p> <p>CORRECTIVE ACTION-UNKNOWN.</p>						
GUIDANCE-GE MARK II-A/B DECODER	BI-4NO-01-125 DECODER	COMPOSITE-FRG/PHL	125D 600613	8-1/MTR	YES YES	GENERAL ELECTRIC IC
<p>FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. GUIDANCE STATION COULD NOT DETECT BEACON TRIGGER FROM DECODER.</p> <p>SYSTEM EFFECT-OPERATION DOES NOT START. EMERGENCY GUIDANCE SYSTEM OPERATION DURING LOOP TEST.</p> <p>VEHICLE EFFECT-COMPOSITE DELAYED.</p> <p>CORRECTIVE ACTION-DECODER REPLACED.</p>						
GUIDANCE-GE MARK II-A/B DECODER	50C/2AP03-004/LA-701-02-7111 DECODER	FLIGHT	7111 600603	2-4/PHLC 179	NO NO	GENERAL ELECTRIC IC
<p>FAILURE MODE-EMERGENCY OPERATION. EMERGENCY RANGE RATE DATA JUMPS WERE PRESENT IN THE DATA SUPPLIED TO THE GROUND COMPUTER BY THE GROUND RADAR FROM 100 SECONDS, THROUGH THE END OF GUIDANCE OPERATION. THE PROBLEM WAS ISOLATED TO TWO IN ANOMALY-OPERATING DIODES IN THE 712123 SUBASSEMBLY OF THE DATA EXTRACTION CABINET.</p> <p>SYSTEM EFFECT-NONE. THE DATA EDITING CAPABILITY OF THE COMPUTER REPLACED THIS ERRONEOUS RANGE RATE DATA WITH DIFFERENTIATED TRACK DATA.</p> <p>VEHICLE EFFECT-NONE.</p> <p>CORRECTIVE ACTION-THE 712123 SUBASSEMBLY WAS REPLACED AND THE SYSTEM REVALIDATED.</p>						
GUIDANCE-GE MARK II-A/B DECODER	50C/CAM003-001-40/PC-CO-01-0071-014 DECODER	COMPOSITE-FACTORY	7114 600712	FACTORY	NO NO	GENERAL ELECTRIC IC
<p>FAILURE MODE-FAILED TO OPERATE AT PRESCRIBED TIME. GUIDANCE DISCRETE INITIATE REPARATION SEQUENCE (DELAY 4) FAILED TO ACTIVATE AT 9240 SECONDS AS EXPECTED. GUIDANCE TAPE WAS ONE ADVANCE LATE. (SUBSEQUENT TO SETUP OF DELAY 4 AT 9240-4 SECONDS).</p> <p>SYSTEM EFFECT-IMPROVED DISCRETE SIGNALS.</p> <p>VEHICLE EFFECT-COMPOSITE RE-DECODED. POST-COMPOSITE TESTING REQUIRED. FLIGHT CONTROL PROGRAMMER DID NOT HAVE 100</p>						

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GENERAL DYNAMICS  
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DIFFICULTIES REVIEW-GUIDANCE SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	DATE TIME DIP	YES OTH	VEHICLE NAME VEHICLE PART NO	
DISCRETE DUE TO THIS GUIDANCE TAPE PROBLEM.							000001
CORRECTIVE ACTION-SETUP GUIDANCE TAPE PROPERLY.							
GUIDANCE-GE MARK II-A/B RECODER	62A-4P264-039/A1-402-00-215 RECODER, POWER SUPPLY	FLIGHT	2100 641201	13/07R 121	YES YES IC	YES GENERAL ELECTRIC	004785
FAILURE MODE-ERRATIC OPERATION. ALL RECODER INSTRUMENTATION MEASUREMENTS EVIDENCED A SHARP MOMENTARY DROP AT 121.3 SECONDS. PROBLEM ATTRIBUTED TO RECODER POWER SUPPLY (INTERNAL) OR ERRONEOUS DIGITAL COMMAND MESSAGES FROM SAME.							
SYSTEM EFFECT-NONE.							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-NONE. MISSILE FLIGHT WAS SUCCESSFUL.							
GUIDANCE-GE MARK II-A/B RECODER	62/CZ264-039/A1-402-00-215 21 RECODER	FLIGHT	7101 640724	2-4/04LC NO	NO NO IC	YES GENERAL ELECTRIC	000006
FAILURE MODE-FAILURE TO OPERATE AT PRESCRIBED TIME. THE FIRST LOOP TEST WAS ABORTED DUE TO THE ERRONEOUS TRANSMISSION OF THE 143 (INITIATE SEPARATION SEQUENCE) DISCRETE BY THE GROUND STATION. THIS RESULTED FROM OPERATOR ERROR IN FAILING TO RESET THE COMPUTER FROM THE PREVIOUS LOOP TEST.							
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.							
VEHICLE EFFECT-COUNTDOWN DELAYED.							
CORRECTIVE ACTION-THE GROUND STATION COMPUTER WAS RE-SET.							
GUIDANCE-GE MARK II-A/B RECODER	62/CZ264-039/A1-402-00-215 RECODER	FLIGHT	1200 641111	14-1 14-2	YES NO IC	YES GENERAL ELECTRIC	000486
FAILURE MODE-PROXIMATE OPERATION. PRIOR TO THE SEPARATION OF STEERING COMMANDS BY THE GROUND COMPUTER, THE RECODER HAD TWO DISTINCT OUTPUTS FROM THE YAW STEERING CHANNELS. A 9 PERCENT YAW RIGHT, A 14-2 SECONDS, AND A 10 PERCENT YAW RIGHT AT 14-2 SECONDS. CAUSE UNKNOWN.							
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.							
VEHICLE EFFECT-IMPROPER TRAJECTORY. THE RECODER TRANSMITTED DID TORQUE THE YAW DISPLACEMENT CYCLE AT 143 SECONDS WITH A SMALL MAGNITUDE COMMAND WHICH DEGRADED TO ZERO IN APPROXIMATELY 3.7 SECONDS.							
CORRECTIVE ACTION-UNKNOWN.							

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GENERAL DYNAMICS  
COMPAIR DIVISION

## DIFFICULTIES REVIEW-GUIDANCE SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PR1 OTH	VENDOR NAME VENDOR PART NO	
GUIDANCE-GE MARK 11-A/B RECEIVER	AD40-0031/64237/MS-4MO-08-33 GUIDANCE RECEIVER	COMPOSITE-FIB/DPL	330 600909	9-3/4TR	YES NO	GENERAL ELECTRIC 1C	000730
FAILURE MODE-FAIL DURING OPERATION. AT BECO, DURING A LOOP TEST, AN IMPROPER SIGNAL WAS SENT TO THE AUTOPILOT FROM THE DECODER. THE GROUND GUIDANCE STATION DID NOT GENERATE ANY SPURIOUS SIGNAL AT THIS TIME.							
SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS.							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-THE GUIDANCE CANISTER WAS REPLACED.							
GUIDANCE-GE MARK 11-A/B ANTENNA AND NAVGUIDE	GC/CKP83-OUT/LA-708-00-7109 ANTENNA	COUNTDOWN	7109 650824	2-4/PALC -802	NO NO	GENERAL ELECTRIC 1C	000928
FAILURE MODE-FAIL DURING OPERATION. BECAUSE OF MULTIPATH SIGNAL PHENOMENON, THE GROUND GUIDANCE STATION COULD NOT SUFFICIENTLY REACQUIRE TRACK LOCK WITH THE VEHICLE AFTER READDRESSING AND THEN READDRESSING THE VEHICLE.							
SYSTEM EFFECT-OPERATION DOES NOT START. BECAUSE OF INABILITY TO REACQUIRE LOCK, THE VEHICLE COULD NOT BE ADDRESSSED.							
VEHICLE EFFECT-COUNTDOWN ABORTED AND RESCHEDULED. TOTAL HOLD TIME WAS 105 MINUTES.							
CORRECTIVE ACTION-NONE. MULTIPATH PROBLEMS APPEAR SPOADIGICALLY AND CANNOT BE FEASIBLY ELIMINATED.							
GUIDANCE-GE MARK 11-A/B ANTENNA AND NAVGUIDE	GC/C-BKPS3-008/AL-401-00-811 ANTENNAS	FLIGHT	2110 650227	4-1/4TR 100	YES NO	GENERAL ELECTRIC 1C	001163
FAILURE MODE-FAIL DURING OPERATION. CURPING PHENOMENON OF THE OUTPUTS OF THE TWO GUIDANCE VEHICLEBORNE ANTENNAS CAUSED THE INPUT SIGNAL TO THE PULSE BEACON TO BE BELOW THE RECEIVER THRESHOLD AT 180 SECONDS AND 175 SECONDS.							
SYSTEM EFFECT-OPERATION TOO LOW. AS A RESULT OF THE ANTENNA CURPING EFFECT, SLIGHT DROPS OF 4-PERCENT 1RM FOR 9-3.3 SECONDS DURATION WERE OBSERVED ON THE PULSE BEACON WAVEFORM AVERAGE CURRENT MEASUREMENT (MCA) AT 180 SECONDS AND 175 SECONDS.							
VEHICLE EFFECT-NONE. NO GUIDANCE ERRORS RESULTED.							
CORRECTIVE ACTION-NONE REQUIRED. THE CURPING EFFECT USUALLY OCCURS WHEN THE TWO ANTENNAS HAVE FAVORABLE LOOK-ANGLE SIMULTANEOUSLY. THESE EFFECTS ARE NONCRITICAL AND ARE NOT CONSIDERED TO BE DETRIMENTAL TO GUIDANCE OPERATION.							
GUIDANCE-GE MARK 11-A/B ANTENNA AND NAVGUIDE ANTENNA, COUPLER, RECEIVER	A-40-10-040-F NAVGUIDE	PAR 7-24131-3	200000	WTR	YES NO	TELERAD	
FAILURE MODE-LEAK-EXTERNAL. NAVGUIDE LEAKED AT A PLANGE ATTACHMENT TO THE TUBE DURING PURGE AND PRECOMMISSIONING OF THE GUIDANCE STATION. LEAKAGE AT THE HELD-ON PLANGE IS ATTRIBUTED TO POOR AND INCOMPLETE WELDING.							

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21 PFLU 7189 REVITW-OUT DANCE 878 PFLU-4 INDOOR

SYSTEM SAS-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIS	SIZE TIME DIS	PRI OTH	VENDOR NAME VENDOR PART NO
CORRECTIVE ACTION-THE VENDOR WILL CONTROL WELDING AND INSPECTION MORE CLOSELY.						
GUIDANCE-ARM-A/S	AES-0078/01-001-00-00	COUNTDOWN	000000	F/NR	YES	ARM NO
FAILURE MODE-FAIL DURING OPERATION. NO-NO INDICATION FROM GUIDANCE SYSTEM DURING COUNTDOWN.						
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.						
VEHICLE EFFECT-COUNTDOWN ABORTED.						
CORRECTIVE ACTION-UNKNOWN.						
GUIDANCE-ARM-A/S	AES-0078/01-001-00-00	COUNTDOWN	000000	F/NR	YES	ARM NO
FAILURE MODE-FAIL DURING OPERATION. NO-NO INDICATION FROM GUIDANCE SYSTEM DURING COUNTDOWN.						
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.						
VEHICLE EFFECT-COUNTDOWN ABORTED.						
CORRECTIVE ACTION-UNKNOWN.						
GUIDANCE-ARM-A/S	AES-0078/01-001-00-00	COMPOSITE-FIB/OP	010000	F/NR	YES	ARM NO
FAILURE MODE-FAIL DURING OPERATION. GUIDANCE FAIL INDICATION ON LOC.						
SYSTEM EFFECT-IMPROPER ANALOG SIGNAL.						
VEHICLE EFFECT-COMPOSITE DELAYED.						
CORRECTIVE ACTION-UNKNOWN.						
GUIDANCE-ARM-A/S	AES-0078/01-001-00-00	COMPOSITE-FIB/OP	010000	F/NR	YES	ARM NO
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. GUIDANCE SYSTEM FAILED TO OPERATE.						
SYSTEM EFFECT-IMPROPER ANALOG SIGNAL. GUIDANCE READY AND INDICATION ON LOC.						
VEHICLE EFFECT-COMPOSITE DELAYED.						
CORRECTIVE ACTION-UNKNOWN.						

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GENERAL AMICS  
COMBAT DIVISION

## DIFFICULTIES REVIEW-GUIDANCE SYSTEM-AIRBORNE

SYSTEM SUS - TESTED	TEST/REPORT NUMBER FAILED COMPONENT NAME	SIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF TIME DIF	SITE F/MTR	NO ARMA NO	VEHICLE NAME VEHICLE PART NO
GUIDANCE-AIRMA-A/B	D4808/01-SHO-08-84	COMPOSITE-PRO/07L	84E	811008	NO ARMA NO	000346
FAILURE MODE-FAIL DURING OPERATION-GUIDANCE FAIL INDICATION RECEIVED ON LAUNCH CONTROL CONSOLE DUE TO BLOWN FUSE.						
SYSTEM EFFECT-OPERATION STOPPED PREMATURELY.						
VEHICLE EFFECT-COMPOSITE DELAYED.						
CORRECTIVE ACTION-UNKNOWN.						
GUIDANCE-AIRMA-A/B	D4479/01-SHO-07-11	COMPOSITE-PRO/07L	11E	870C/MTR	YES ARMA NO	000513
FAILURE MODE-ERRATIC OPERATION. GUIDANCE FAIL LIGHT ON THE CONSOLE IN THE LAB FLICKERED ON AND OFF SEVERAL TIMES.						
SYSTEM EFFECT-ERRATIC OPERATION						
VEHICLE EFFECT-COUNTDOWN DELAYED						
CORRECTIVE ACTION-UNKNOWN.						
GUIDANCE-AIRMA-A/B	AERL-0053/TC-SCO-04-017	COMPOSITE-FACTORY	17E	FACTORY	NO ARMA NO	000039
FAILURE MODE-ERRATIC OPERATION. TELEMETRY MEASUREMENT 61540V, CONTROL 115 VAC, PHASE 9, DISPLAYED 10 PCT 15W VARIAT IONS THROUGHOUT THE TEST. THIS CONDITION WAS REPETITIVE ON EARLY E SERIES AND WAS ISOLATED TO A BEAT FREQUENCY PICKU F IN THE GUIDANCE TEST ENVIRONMENT OF THE ARE AND AIRBORNE 400 CYCLE POWER SUPPLIES.						
SYSTEM EFFECT-ERRATIC OPERATION.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-TEST ENVIRONMENT MODIFICATION WAS PERFORMED ON ALL E SERIES DOCS TO RESOLVE THIS AND OTHER GROUNDI NG PROBLEMS.						
GUIDANCE-AIRMA-A/B	PTA0370/01-SCO-08-08	COMPOSITE-B FACT	0E	11/07E	YES ARMA NO	007502
FAILURE MODE-FAIL DURING OPERATION. THE 2PI ACCELEROMETER STRING CIRCUITRY FAILED DURING COUNTDOWN OPERATIONS.						
SYSTEM EFFECT-IMPROPER AMPLON SIGNALS.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-UNKNOWN. TEST CONTINUED. FAILURE TO BE INVESTIGATED.						

FEDERAL BUREAU OF INVESTIGATION  
U. S. DEPARTMENT OF JUSTICE

## OFFICIAL REVIEW-GUIDANCE BY THE ATTORNEY GENERAL

SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	BIF DATA SOURCE PART NUMBER	VEHICLE DATE BIF TIME	AITE TIME BIF CTR	FRI YES NO	RENDER NAME VESSELS PART NO
GUNSAUCE-ARMA-A/S PLATFORM AND CONTROL	ARMED-005-1377/TC-CO-68-0811-003 PLATFORM AND CONTROL	COMPOSITE-FRIB/DPL	1377	FACTORY	YES NO	YES ARMA
FAILURE MODE-EMATIC OPERATION-STRAIN FREQUENCY OUTPUT WERE OBSERVED TO OPERATE EMATICALLY SEVERAL TIMES DURING THE TEST AND WAS DETERMINED TO BE THE CONTROL UNIT.						
SYSTEM EFFECT-EMATIC OPERATION.						
VEHICLE EFFECT-NONE.						
CONNECTIVE ACTION-SINCE THE ARMA SYSTEM WAS A BLAVE UNIT, AND THE INTERMITTENT OPERATION WAS APPARENTLY A ONE TIME OCCURRENCE, THE SYSTEM WAS ACCEPTED AS IS.						
GUNSAUCE-ARMA-A/S PLATFORM AND CONTROL	DABIS/CB-800-13-04 DICE COLLIMATOR	COMPOSITE-FRIB/DPL	04E	FACTORY	YES NO	YES ARMA
FAILURE MODE-FAIL DURING OPERATION. A GUNSAUCE FAIL LIGHT WAS RECEIVED DURING THE COUNTDOWN DUE TO THE FAILURE OF THE ACQUIRE OPTICS. THE COLLIMATOR DID NOT OPERATE DUE TO BURNED OUT DIODES CB-17 AND CB-18 IN THE GUN ALIGNMENT GROUP POWER CHANNELS.						
SYSTEM EFFECT-OPERATION DOES NOT START. ALIGNMENT NOT COMPLETED.						
VEHICLE EFFECT-COUNTDOWN DELAYED OR RECOMMENDED.						
CONNECTIVE ACTION-DIODES REPLACED.						
GUNSAUCE-ARMA-A/S PLATFORM AND CONTROL	DABIS/CB-800-12-15 PLATFORM AND CONTROL	COMPOSITE-FRIB/DPL	15F	FACTORY	YES NO	YES ARMA
FAILURE MODE-FAIL DURING OPERATION.						
SYSTEM EFFECT-OPERATION STOPS PREMATURELY. GUIDANCE COUNTDOWN MORE FAILED TO PROCEEDS BEYOND THE INITIATION OF PLATFORM ALIGNMENT.						
VEHICLE EFFECT-COMPOSITE ABSORBED AND RE-BOUNDED.						
CONNECTIVE ACTION-NONE.						
GUNSAUCE-ARMA-A/S PLATFORM AND CONTROL	DABIS/CB-800-12-08 COLLIMATOR	COMPOSITE-FRIB/DPL	08F	FACTORY	YES NO	YES ARMA
FAILURE MODE-FAIL DURING OPERATION. GUIDANCE FAIL LIGHT ILLUMINATED. THE SIGHT TUBE HAD BEEN RECENTLY RETRACTED.						
SYSTEM EFFECT-OPERATION STOPS PREMATURELY. GUIDANCE SYSTEM COUNTDOWN TERMINATED.						

**3. 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 220. 221. 222. 223. 224. 225. 226. 227. 228. 229. 230. 231. 232. 233. 234. 235. 236. 237. 238. 239. 240. 241. 242. 243. 244. 245. 246. 247. 248. 249. 250. 251. 252. 253. 254. 255. 256. 257. 258. 259. 260. 261. 262. 263. 264. 265. 266. 267. 268. 269. 270. 271. 272. 273. 274. 275. 276. 277. 278. 279. 280. 281. 282. 283. 284. 285. 286. 287. 288. 289. 290. 291. 292. 293. 294. 295. 296. 297. 298. 299. 300. 301. 302. 303. 304. 305. 306. 307. 308. 309. 310. 311. 312. 313. 314. 315. 316. 317. 318. 319. 320. 321. 322. 323. 324. 325. 326. 327. 328. 329. 330. 331. 332. 333. 334. 335. 336. 337. 338. 339. 340. 341. 342. 343. 344. 345. 346. 347. 348. 349. 350. 351. 352. 353. 354. 355. 356. 357. 358. 359. 360. 361. 362. 363. 364. 365. 366. 367. 368. 369. 370. 371. 372. 373. 374. 375. 376. 377. 378. 379. 380. 381. 382. 383. 384. 385. 386. 387. 388. 389. 390. 391. 392. 393. 394. 395. 396. 397. 398. 399. 400. 401. 402. 403. 404. 405. 406. 407. 408. 409. 410. 411. 412. 413. 414. 415. 416. 417. 418. 419. 420. 421. 422. 423. 424. 425. 426. 427. 428. 429. 430. 431. 432. 433. 434. 435. 436. 437. 438. 439. 440. 441. 442. 443. 444. 445. 446. 447. 448. 449. 450. 451. 452. 453. 454. 455. 456. 457. 458. 459. 460. 461. 462. 463. 464. 465. 466. 467. 468. 469. 470. 471. 472. 473. 474. 475. 476. 477. 478. 479. 480. 481. 482. 483. 484. 485. 486. 487. 488. 489. 490. 491. 492. 493. 494. 495. 496. 497. 498. 499. 500. 501. 502. 503. 504. 505. 506. 507. 508. 509. 510. 511. 512. 513. 514. 515. 516. 517. 518. 519. 520. 521. 522. 523. 524. 525. 526. 527. 528. 529. 530. 531. 532. 533. 534. 535. 536. 537. 538. 539. 540. 541. 542. 543. 544. 545. 546. 547. 548. 549. 550. 551. 552. 553. 554. 555. 556. 557. 558. 559. 560. 561. 562. 563. 564. 565. 566. 567. 568. 569. 570. 571. 572. 573. 574. 575. 576. 577. 578. 579. 580. 581. 582. 583. 584. 585. 586. 587. 588. 589. 590. 591. 592. 593. 594. 595. 596. 597. 598. 599. 600. 601. 602. 603. 604. 605. 606. 607. 608. 609. 610. 611. 612. 613. 614. 615. 616. 617. 618. 619. 620. 621. 622. 623. 624. 625. 626. 627. 628. 629. 630. 631. 632. 633. 634. 635. 636. 637. 638. 639. 640. 641. 642. 643. 644. 645. 646. 647. 648. 649. 650. 651. 652. 653. 654. 655. 656. 657. 658. 659. 660. 661. 662. 663. 664. 665. 666. 667. 668. 669. 670. 671. 672. 673. 674. 675. 676. 677. 678. 679. 680. 681. 682. 683. 684. 685. 686. 687. 688. 689. 690. 691. 692. 693. 694. 695. 696. 697. 698. 699. 700. 701. 702. 703. 704. 705. 706. 707. 708. 709. 710. 711. 712. 713. 714. 715. 716. 717. 718. 719. 720. 721. 722. 723. 724. 725. 726. 727. 728. 729. 730. 731. 732. 733. 734. 735. 736. 737. 738. 739. 740. 741. 742. 743. 744. 745. 746. 747. 748. 749. 750. 751. 752. 753. 754. 755. 756. 757. 758. 759. 760. 761. 762. 763. 764. 765. 766. 767. 768. 769. 770. 771. 772. 773. 774. 775. 776. 777. 778. 779. 780. 781. 782. 783. 784. 785. 786. 787. 788. 789. 790. 791. 792. 793. 794. 795. 796. 797. 798. 799. 800. 801. 802. 803. 804. 805. 806. 807. 808. 809. 810. 811. 812. 813. 814. 815. 816. 817. 818. 819. 820. 821. 822. 823. 824. 825. 826. 827. 828. 829. 830. 831. 832. 833. 834. 835. 836. 837. 838. 839. 84**

GENERAL DYNAMICS  
COMPARIS DIVISION

16 JUN 1966

DIFFICULTIES REVIEW-GUIDANCE SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTM	VEHICLE NAME VEHICLE PART NO
VEHICLE EFFECT-COASTDOWN ABORTED AND RECOVERABLES.						
CORRECTIVE ACTION-THE SIGHT TUBE WHICH HAD BEEN INSTANTLY RETRACTED WAS INTENDED FOR THE NEXT DIP ATTEMPT.						
GUIDANCE-ARM-A/S PLATFORM AND CONTROL	DA873 DE-800-14-03 GYRO PLATFORM HEATER	COMPOSITE-TRD/DPL 000017	5/MT	YES	YES	YES
FAILURE MODE-OUT OF SPECIFICATION. GUIDANCE FAIL ILLUMINATED RED AT SITE HAD PLUS 6 SEC. FOLLOWING RETURN TO STAN BY).						
SYSTEM EFFECT-HIGH TEMPERATURE ENVIRONMENT. GYRO PLATFORM TEMPERATURE TOO HIGH.						
VEHICLE EFFECT-MODE.						
CORRECTIVE ACTION-GYRO PLATFORM REPLACED.						
GUIDANCE-ARM-A/S PLATFORM AND CONTROL	1201-0312/DA873/DE-800-13-08 COLLIMATOR	COMPOSITE-TRD/DPL 001219	6/MT	NO	NO	NO
FAILURE MODE-FAIL DURING OPERATION. BLOCKAGE IN OPTIC SYSTEM SIGHT TUBE.						
SYSTEM EFFECT-IMPROPER ANALOG SIGNAL. GUIDANCE FAILED INDICATION ON LOC. GUIDANCE WAS OBTAINED BY SWITCHING TARGETS						
VEHICLE EFFECT-COMPOSITE DELAYED.						
CORRECTIVE ACTION-UNKNOWN.						
GUIDANCE-ARM-A/S PLATFORM AND CONTROL	AR141-0-8-11/PC-800-04-011 ACCELEROMETER-FUNCTIONAL	COMPOSITE-FACTORY 001109	FACTORY	NO	NO	NO
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. THE STIMING COMMAND WAS GENERATED TOO LATE. THIS WAS CAUSED BY 1-1 ACCELEROMETER STIMING FREQUENCY DRIFT WHICH OCCURRED DURING EXHAUSTIVE TIME DELAY BETWEEN THE PRE-COMPOSITE SETUP AND 8 PART OF THE COMPOSITE.						
SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS.						
VEHICLE EFFECT-COMPOSITE DELAYED. POST COMPOSITE TEST MEASURED TO SHOW PROPER OPERATION.						
CORRECTIVE ACTION-NOT KNOWN.						
GUIDANCE-ARM-A/S PLATFORM AND CONTROL	AR141-0-8-11/PC-800-04-014 PLATFORM	COMPOSITE-FACTORY 001114	FACTORY	NO	NO	NO
FAILURE MODE-OUT OF TOLERANCE. THE GYRO TEMPERATURE INDICATED 12.40 DEG. THE READING EXCEEDED THE UPPER LIMIT BY 0.8 20 DEG. THE PLATFORM LAMP WAS NOT STABILIZED AT THE TIME THE READING WAS OBTAINED.						

GENERAL DYNAMICS  
COMPAIR DIVISION

13 JUN 1966

DIFFICULTIES REVIEW-GUIDANCE SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	SIP DATA SOURCE PART NUMBER	VEHICLE DATE DIF TIME	SIVE TIME 837	PR2 ORR	WEAPON NAME WEAPON PART NO	
SYSTEM EFFECT-NONE.							000070
VEHICLE EFFECT-COMPOSITE MISMATCHED. RE-RUN OF COMPOSITE RUNS.							
CORRECTIVE ACTION-NOT KNOWN.							
GUIDANCE-ANNA-A/S PLATFORM AND CONTROL	AA61-0160/PC-800-01-04 MOTOR	COMPOSITE-1 FACT	47 041113	11/27R	NO	ANNA NO	000080
FAILURE MODE-OUT OF TOLERANCE-2 ACCELEROMETER SCALE STORAGE WAS OUT OF TOLERANCE. THE PROBLEM WAS TRACED TO A SLIPP ING CLUTCH ON MOTOR 818.							
SYSTEM EFFECT-UNKNOWN.							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-THE MOTOR WAS REPLACED.							
GUIDANCE-ANNA-A/S PLATFORM AND CONTROL	AA61-0-3-11/PC-800-01-011 PLATFORM	COMPOSITE-FACTORY	11P 011017	FACTORY	YES	ANNA NO 2-0000P-000	000090
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME- THE STAGING FUNCTION OCCURRED LATE AND THE INSULATOR AND VEHICLE C UTOFF FUNCTION OCCURRED EARLY. THIS PROBLEM RECALLED ON THE SECOND COMPOSITE TEST.							
SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS-STAGING, VECO AND SECO WERE MODERATED AT THE WRONG TIMES.							
VEHICLE EFFECT-COMPOSITE MISMATCHED. COMPOSITE RE-RUN.							
CORRECTIVE ACTION-THE PLATFORM WAS REPLACED.							
GUIDANCE-ANNA-A/S PLATFORM AND CONTROL	AA61-0090/PC-800-01-007 AMPLIFIER	COMPOSITE-FACTORY	87E 011010	FACTORY	YES	ANNA NO	000100
FAILURE MODE-OUT OF TOLERANCE. DUE TO A HIGH GUIDANCE AZIMUTH RESOLVER OUTPUT VOLTAGE, THE ROLL gyro YOMMER AMPLIF IER SATURATED AND ANNA ROLL CORRECTION END TIME COULD NOT BE EVALUATED.THE EXCESSIVE AZIMUTH RESOLVER OUTPUT IS CAUS ED BY PLATFORM BRIFT.							
SYSTEM EFFECT-OPERATION TOO LOW. ANNA ROLL CORRECTION DUE TO SATURATED ROLL SYNCHRONIZER AMPLIFIER.							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-NOT KNOWN.							



# GENERAL DYNAMICS CONVAIR DIVISION

16 JUN 1966

## DIFFICULTIES REVIEW-NUCLEAR SYSTEM AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	SIF DATA SOURCE PART NUMBER	VEHICLE DATE SEP	SITE TIME DIF	PRE OTH	WEAPON NAME VEHICLE PART NO
GUIDANCE-ARM-1/S PLATFORM AND CONTROL	ADM-0700/PL-100-00-23 PLATFORM	FLIGHT	296 010000 6	11/ETB 6	YES NO	ADM-0700 010000 6
<p>FAILURE MODE-OUT OF EXPECTED TEST VALUE. THE BURNOUT TEMPERATURE FELL BELOW THE 39.9 DEG. C BAND LIMIT BETWEEN 6 A AND 10 SECONDS, THEN EXCEEDED THE 48.1 DEG. C 17 IN SECONDS AND REMAINED THERE FOR THE REMAINDER OF THE FLIGHT.</p> <p>SYSTEM EFFECT-NONE. THE TEMPERATURES WERE APPARENTLY NOT SENSITIVE ENOUGH TO DEGRADE SYSTEM PERFORMANCE.</p> <p>VEHICLE EFFECT-NONE.</p> <p>CORRECTIVE ACTION-NONE.</p>						
NUCLEAR-ARM-1/S PLATFORM AND CONTROL	ADM-0007/PL-100-00-24 PLATFORM	COMPOSITE-FACTORY	246 010000	F/MTB NO	NO NO	ADM-0007 010000
<p>FAILURE MODE-OUT OF TOLERANCE. GUIDANCE MALFUNCTION DUE TO CHANGING THE RANGE ERROR CORRECTION POTENTIOMETERS ON THE ECC PRIOR TO SELECTING A NEW TARGET WHICH UPSET THE NULL OF INDUCTION TO STEREO LOOP.</p> <p>SYSTEM EFFECT-ERRATIC OPERATION. INTERMITTENT NUCLEAR FAILURE INDICATIONS.</p> <p>VEHICLE EFFECT-COUNTDOWN DELAYED.</p> <p>CORRECTIVE ACTION-OPERATOR MODIFIED TO REFLECT CORRECT PROCEDURE FOR ADJUSTING RANGE ERROR POTENTIOMETERS AFTER SELECTING TARGETS.</p>						
GUIDANCE-ARM-1/S PLATFORM AND CONTROL	ADM-0007/PL-100-00-24 PLATFORM	COMPOSITE-FACTORY	246 010000	F/MTB NO	NO NO	ADM-0007 010000
<p>FAILURE MODE-FAIL DURING OPERATION. A NUCLEAR FAILURE INDICATION WAS RECEIVED DUE TO A FAILURE IN THE ACCELEROMETER CALIBRATION BEARING ACCELEROMETER SUB-PROGRAMMER STEP 12).</p> <p>SYSTEM EFFECT-OPERATION TOO HIGH.</p> <p>VEHICLE EFFECT-COUNTDOWN DELAYED.</p> <p>CORRECTIVE ACTION-CALIBRATION BEARING MODIFIED.</p>						
GUIDANCE-ARM-1/S PLATFORM AND CONTROL	ADM-0007/PL-100-00-24 PLATFORM	COMPOSITE-FACTORY	246 010000	F/MTB NO	NO NO	ADM-0007 010000
<p>FAILURE MODE-PREMIATURE OPERATION-NECO WAS INDICATED AT 009.100 SECONDS OF THE COMPOSITE TEST WHILE A MEMBER OF THE 100 IS ALLOWED. THIS WAS CAUSED BY MISALIGNMENT OF THE PLATFORM BEARING FROM A WEIRING ERROR IN THE TEST EQUIPMENT PORTION OF THE PLATFORM ALIGNMENT LOOP.</p> <p>SYSTEM EFFECT-OPERATION STOPS PREMATURELY. NECO WENT TOO SOON. CAUSED BY AGE ERROR.</p>						

PLATE 8006

GENERAL SYMPOSIUM  
COMPARISON DIVISION

10 JAN 1966

DIFFICULTIES REVIEW-OUTSIDE SYSTEM-ARMOR

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	YES NO	VEHICLE MAKE VEHICLE PART NO
VEHICLE EFFECT-COMPOSITE RECOMMENDED. COMPOSITE TEST RE-RUN WITHOUT ANY GUIDANCE PROBLEM.						
CORRECTIVE ACTION-THE WEIRING ERROR WAS CORRECTED.						
GUIDANCE-ARMOR-A/S PLATFORM AND CONTROL	AES1-0803/PC-800-01-010 ACCELEROMETER-FUNCTIONAL	COMPOSITE-FACTORY 910803	FACTORY	YES NO		
FAILURE MODE-OUT OF TOLERANCE. THE ROLL PROGRAM INPUT SIGNAL WAS EXCESSIVE. THIS WAS CAUSED BY A HIGH AZIMUTH READOUT PER VOLTAGE RESULTING FROM AN EXCESSIVE DRIFT OF THE ARMOR PLATFORM.						
SYSTEM EFFECT-IMPROPER ANGLES SIGNALS.						
VEHICLE EFFECT-COMPOSITE RECOMMENDED-ANOTHER COMPOSITE RUN MADE.						
CORRECTIVE ACTION-THE STRAIN FREQUENCIES WERE RECALIBRATED.						
GUIDANCE-ARMOR-A/S PLATFORM AND CONTROL	AES1-0813/PC-800-08-010 PLATFORM	COMPOSITE-FACTORY 910807	FACTORY	NO NO		
FAILURE MODE-PREATURE OPERATION-SUSTAINER AND WEIRING CUTOFF OCCURRED EARLIER THAN EXPECTED. DUE TO AN OVERSIGHT IN MODIFYING AGE PRIOR TO COMPOSITE TESTING; PLATFORM RECALIBRATION RESULTED.						
SYSTEM EFFECT-IMPROPER WEIRING SIGNALS.						
VEHICLE EFFECT-COMPOSITE DELAYED. POST COMPOSITE TEST REQUIRED TO SHOW PROPER OPERATION.						
CORRECTIVE ACTION-THE TEST EQUIPMENT WAS RETURNED TO ITS PREVIOUS CONFIGURATION PRIOR TO THE POST-COMPOSITE TEST.						
GUIDANCE-ARMOR-A/S PLATFORM AND CONTROL	AES1-0814/PC-800-01-009 PLATFORM	COMPOSITE-FACTORY 910819	FACTORY	NO NO		
FAILURE MODE-OUT OF TOLERANCE. THE BURNING AND WEIRING TEMPERATURES WERE HIGHER THAN EXPECTED DURING THE COMPOSITE TEST. ST. THE POST TEMPERATURE WAS HIGHER THAN ALLOWABLE DUE TO A MISADJUSTED POST COOLING SYSTEM.						
SYSTEM EFFECT-MORE. SYSTEM WORKED WITHIN TOLERANCES.						
VEHICLE EFFECT-COMPOSITE RECOMMENDED. THE COMPOSITE TEST WAS RUN AFTER ADJUSTING FOR COOLING.						
CORRECTIVE ACTION-POST COOLING WAS READJUSTED.						
GUIDANCE-ARMOR-A/S PLATFORM AND CONTROL	AES1-0801/PC-800-08-003 ACCELEROMETER	COMPOSITE-FACTORY 910813	FACTORY	YES NO		
FAILURE MODE-OPERATION TOO LATE. THE GUIDANCE STAGING SIGNAL OCCURRED LATER THAN EXPECTED. THIS WAS DUE TO THE ACCELEROMETER STRAIN FREQUENCIES DRIFTING OUT OF CALIBRATION.						

GENERAL DYNAMICS  
CONVAIR DIVISION

15 JUN 1966

CULTIES REVIEW-GUIDANCE SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VEHICLE NAME VEHICLE PART NO	
							000411
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS-THE STRING ACCELEROMETERS WERE OUT OF CALIBRATION. VEHICLE EFFECT-COMPOSITE DELAYED. POST-COMPOSITE TEST REQUIRED TO SHOW SATISFACTORY OPERATION. CORRECTIVE ACTION-THE ACCELEROMETERS WERE RECALIBRATED AND A SATISFACTORY POST-COMPOSITE TEST WAS PERFORMED.							
GUIDANCE-ARMA-A/B PLATFORM AND CONTROL	ADSI-0817/DA578-721-287-01-04 COLLIMATOR	COMPOSITE-PWB/DPL	DAE	F/MTR	YES	ADMA NO	000721
FAILURE MODE-OUT OF TOLERANCE. OUT OF TOLERANCE SETTING ON COLLIMATOR. SYSTEM EFFECT-OPERATION DOES NOT START. GUIDANCE FAIL RED INDICATION. VEHICLE EFFECT-COUNTDOWN DELAYED. CORRECTIVE ACTION-COLLIMATOR RESET.							
GUIDANCE-ARMA-A/B PLATFORM AND CONTROL	ADSI-0817/DA578-721-287-10-11 PLATFORM	COMPOSITE-PWB/DPL	11E	C/MTR	YES	ADMA NO	000726
FAILURE MODE-FAIL DURING OPERATION. ARMA PLATFORM FAILURE DUE TO LEVELING PROGRAM OMISSION OR INCOMPLETE PERFORMANCE OF STEP 15 RESULTING IN NOT ACQUIRING OPTICS. SYSTEM EFFECT-OPERATION DOES NOT START. GUIDANCE FAILURE. VEHICLE EFFECT-COMPOSITE DELAYED. CORRECTIVE ACTION-PHOTO-MULTIPLIER TUBE IN THE COLLIMATOR WAS INTERMITTANT AND WAS REPLACED BUT MISSILE REMOVAL DID NOT ALLOW VERIFICATION THAT THIS ELIMINATED PROBLEM IN ACQUIRING OPTICS.							
GUIDANCE-ARMA-A/B PLATFORM AND CONTROL	ADSI-0817/DA578-721-287-17-11 PLATFORM	COMPOSITE-PWB/DPL	11-E	C/MTR	NO	ADMA NO	000728
FAILURE MODE-FAIL DURING OPERATION FAILURE TO ACQUIRE OPTICAL AZIMUTH ALIGNMENT. SYSTEM EFFECT-OPERATION DOES NOT START. GUIDANCE FAIL RED INDICATION ON LCD. VEHICLE EFFECT-COUNTDOWN DELAYED. CORRECTIVE ACTION-REWORK.							

GENERAL DYNAMICS  
CONTAINER DIVISION

13 JUN 1966

DIFFICULTIES REVIEW-GUIDANCE SYSTEM-AIRBORNE

SYSTEM	TEST/REPORT NUMBER	DIP DATA SOURCE	VEHICLE DATE	DATE	TIME	DISP	YES	NO	YES	NO	VEHICLE NAME
840-SYSTEM	FAILED COMPONENT NAME	PART NUMBER	VEHICLE DATE	DATE	TIME	DISP	YES	NO	YES	NO	VEHICLE NAME
GUIDANCE-ARM-A/S PLATFORM AND CONTROL	ADSL-0283/0A570/CI-SWP-13-11 PLATFORM	COMPOSITE-FIB/DPL	11-E	010007							000037
FAILURE MODE-FAIL DURING OPERATION. FAILURE TO ACQUIRE OPTICAL ALIGNMENT.											
SYSTEM EFFECT-OPERATION DOES NOT START. GUIDANCE FAIL RED INDICATION ON LOC.											
VEHICLE EFFECT-COMPOSITE DELAYED.											
CORRECTIVE ACTION-UNKNOWN.											
GUIDANCE-ARM-A/S PLATFORM AND CONTROL	ADSL-0283/0A570/CI-SWP-13-11 PLATFORM	COMPOSITE-FIB/DPL	11-E	010004							000723
FAILURE MODE-FAIL DURING OPERATION. FAILURE TO ACQUIRE OPTICS.											
SYSTEM EFFECT-OPERATION DOES NOT START. INTERMITTENT GUIDANCE FAIL RED INDICATION ON LOC.											
VEHICLE EFFECT-COMPOSITE DELAYED.											
CORRECTIVE ACTION-UNKNOWN.											
GUIDANCE-ARM-A/S PLATFORM AND CONTROL	ADSL-0283/0A570/CI-SWP-13-11 RELAY	COMPOSITE-FIB/DPL	11-E	010004							000723
FAILURE MODE-FAIL TO CEASE OPERATION AT PRESCRIBED TIME. FAILURE OF A RELAY TO DE-ENERGIZE AFTER THE EXPECTED WORKH											
TART GUIDANCE FAIL INDICATION.											
SYSTEM EFFECT-OPERATION TOO LONG. GUIDANCE FAIL RED.											
VEHICLE EFFECT-COMPOSITE DELAYED.											
CORRECTIVE ACTION-UNKNOWN.											
GUIDANCE-ARM-A/S PLATFORM AND CONTROL	ADSL-0283/0A570/CI-SWP-13-11 PLATFORM	COMPOSITE-FIB/DPL	11-E	010005							000721
FAILURE MODE-FAIL DURING OPERATION. FAILURE TO ACQUIRE OPTICAL ALIGNMENT.											
SYSTEM EFFECT-OPERATION DOES NOT START. GUIDANCE FAIL RED INDICATION ON LOC.											
VEHICLE EFFECT-COMPOSITE DELAYED.											
CORRECTIVE ACTION-UNKNOWN.											

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GENERAL DYNAMICS  
COMPAIS DIVISION

## DIFFICULTIES REVIEW-GUIDANCE SYSTEM-ARMOR

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILURE COMPONENT NAME	BIP DATA SOURCE PART NUMBER	VEHICLE DATE BIP	SITE TIME BIP	PHI OTH	VEHICLE MAKE VEHICLE PART NO
GUIDANCE-ARMOR-A/S PLATFORM AND CONTROL	AD01-DE02/ARMOR PLATFORM	COMPOSITE-FPD/DPL	11C 010801	C/MT	NO NO	ARMOR NO
<p>FAILURE MODE-FAIL DURING OPERATION. FAILURE OF FLIGHT SAFETY REDOUT SECTION IN THE ARMOR ONE.</p> <p>SYSTEM EFFECT-OPERATION DOES NOT START. GUIDANCE SYSTEM DID NOT RECEIVE OPTICS REQUESTED SIGNAL.</p> <p>VEHICLE EFFECT-COMPOSITE DELAYED.</p> <p>CORRECTIVE ACTION-ONE EXAMER REPLACED.</p>						
GUIDANCE-ARMOR-A/S PLATFORM AND CONTROL	AD01-DE01/ARMOR PLATFORM	COMPOSITE-FPD/DPL	11C 010801	C/MT	YES NO	ARMOR NO
<p>FAILURE MODE-FAIL DURING OPERATION. ARMOR PLATFORM LEVELLING CONTROL PROGRAM FAILURE.</p> <p>SYSTEM EFFECT-OPERATION DOES NOT START. GUIDANCE FAIL INDICATION.</p> <p>VEHICLE EFFECT-COMPOSITE DELAYED.</p> <p>CORRECTIVE ACTION-UNKNOWN.</p>						
GUIDANCE-ARMOR-A/S PLATFORM AND CONTROL	AD01-DE01/ARMOR PLATFORM	COMPOSITE-FPD/DPL	11C 010701	C/MT	YES NO	ARMOR NO
<p>FAILURE MODE-FAIL DURING OPERATION FAILURE TO ACQUIRE OPTICAL AZIMUTH ALIGNMENT.</p> <p>SYSTEM EFFECT-OPERATION DOES NOT START GUIDANCE FAIL RED INDICATION ON LCC.</p> <p>VEHICLE EFFECT-COMPOSITE DELAYED.</p> <p>CORRECTIVE ACTION-UNKNOWN.</p>						
GUIDANCE-ARMOR-A/S PLATFORM AND CONTROL	AD01-DE04/FC-600-01-013 ACCELEROMETER-FUNCTIONAL	COMPOSITE-FACTORY	11P 010701	FACTORY	YES NO	ARMOR NO
<p>FAILURE MODE-PREATURE OPERATION-THE COMPUTER TIME FOR VEHICLE COPY OCCURRED EARLIER THAN ALLOWED. THE ACCELEROMETER OR STRAIN PHENOMENON WAS DRIFTED OUT OF CALIBRATION.</p> <p>SYSTEM EFFECT-IMPROPER REDOUT SIGNAL.</p> <p>VEHICLE EFFECT-COMPOSITE REDOUT-VEHICLE RE-ARM SUCCESSFULLY AFTER RECALIBRATION.</p> <p>CORRECTIVE ACTION-THE ACCELEROMETERS WERE RECALIBRATED.</p>						

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GENERAL DYNAMICS  
CONVAIR DIVISION

## DIFFICULTIES REVIEW-GUIDANCE SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRE OWN	VEHICLE NAME VEHICLE PART NO
GUIDANCE-AIRMA-A/S PLATFORM AND CONTROL	AER1-0236/TC-SC0-B1-000 ACCELEROMETER	COMPOSITE-FACTORY	806 918781	FACTORY	YES NO	YES NO
<p>FAILURE MODE-PREATURE OPERATION-THE COUNTER TIME FOR VEHICLE CUTOFF OCCURRED EARLY. THIS WAS ATTRIBUTED TO A DRIFTING OF THE ACCELEROMETER STRING FREQUENCIES.</p> <p>SYSTEM EFFECT-IMPROPER DISCRETE SIGNAL, OCCURRED-CAUSED BY ACCELEROMETER DRIFT.</p> <p>VEHICLE EFFECT-COUNTDOWN OR COMPOSITE DELAYED, POST-COMPOSITE TESTING REQUIRED TO SHOW SATISFACTORY PERFORMANCE.</p> <p>CORRECTIVE ACTION-THE ACCELEROMETER STRING FREQUENCIES WERE RECALIBRATED AND SATISFACTORY POST, COMPOSITE TESTING DONE.</p>						
GUIDANCE-AIRMA-A/S PLATFORM AND CONTROL	AER1-0032/PL-SC0-B2-006 ACCELEROMETER	COMPOSITE-FACTORY	806 918714	FACTORY	YES NO	YES NO
<p>FAILURE MODE-DRIFT, THE TIME PL SUSTAINED CUTOFF OCCURRED EARLIER THAN EXPECTED. THE ACCELEROMETER STRING FREQUENCIES HAD DRIFTED OUT OF CALIBRATION DUE TO THE LONG DURATION OF THE TEST.</p> <p>SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS, SC0 SIGNAL SET EARLY DUE TO DRIFT OF ACCELEROMETERS.</p> <p>VEHICLE EFFECT-COMPOSITE DELAYED, POST COMPOSITE TEST MADE TO DEMONSTRATE PROPER OPERATION OF GULFSTREAM SYSTEM.</p> <p>CORRECTIVE ACTION-THE ACCELEROMETER STRING FREQUENCIES WERE RECALIBRATED AND POST COMPOSITE TESTING PERFORMED.</p>						
GUIDANCE-AIRMA-A/S PLATFORM AND CONTROL	AER1-0023/TC-SC0-B1-006 ACCELEROMETER	COMPOSITE-FACTORY	806 910703	FACTORY	YES NO	YES NO
<p>FAILURE MODE-PREATURE OPERATION-THE COUNTER TIME FOR VEHICLE CUTOFF OCCURRED EARLY. THIS WAS ATTRIBUTED TO THE ACCCELEROMETER STRING FREQUENCIES BEING OUT OF ADJUSTMENT.</p> <p>SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS, EARLY VECO OCCURRED-CAUSED BY ACCELEROMETER STRING FREQUENCIES BEING OUT OF ADJUSTMENT.</p> <p>VEHICLE EFFECT-COUNTDOWN OR COMPOSITE DELAYED, POST-COMPOSITE TESTING REQUIRED TO DEMONSTRATE PROPER OPERATION.</p> <p>CORRECTIVE ACTION-ACCELEROMETER STRING FREQUENCIES WERE READJUSTED.</p>						
GUIDANCE-AIRMA-A/S PLATFORM AND CONTROL	AER1-0073/PL-SC0-B1-117 PLATFORM SERVO MOTOR	COMPOSITE-B FACT	176 918802	11/CTR	YES NO	YES NO
<p>FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME, DURING THE FACT COUNTDOWN IT WAS DETERMINED THAT THE SERVO MOTOR OF THE PLATFORM WAS INOPERATIVE.</p> <p>SYSTEM EFFECT-OPERATION DOES NOT START.</p>						

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GENERAL DYNAMICS  
CONVAIR DIVISION

## DIFFICULTIES REVIEW-GUIDANCE SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP TIME	PRJ BIP OTH	VENDOR NAME VENDOR PART NO	
						008753
	VEHICLE EFFECT-COMPOSITE RESCHEDULED. FACT TEST WAS NERUM BUT WAS ASSIGNED THE SAME TEST NUMBER PJ-900-91-17. CORRECTIVE ACTION-REPLACED PLATFORM.					
GUIDANCE-ARMA-A/B PLATFORM AND CONTROL	AE51-0273/PC-900-94-023 STRO-DISPLACEMENT	COMPOSITE-FACTORY	ESE 610401	FACTORY NO	NO ARMA NO	008334
	FAILURE MODE-OUT OF TOLERANCE. EXCESSIVE STRO TEMPERATURES WERE INDICATED DURING THE COMPOSITE TEST DUE TO A FAULTY BLUNDER NOTCH IN THE GUIDANCE TEST SET. SYSTEM EFFECT-NONE. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-PLATFORM AND CONTROL UNIT REJECTED AND REPAIRED.					
						008337
GUIDANCE-ARMA-A/B PLATFORM AND CONTROL	AE51-0273/PC-900-94-023 PLATFORM	COMPOSITE-FACTORY	ESE 610401	FACTORY YES	YES ARMA NO	
	FAILURE MODE-FAIL TO CEASE OPERATION AT PRESCRIBED TIME. ARMA ROLL CORRECTION END TIME COULD NOT BE DETERMINED DUE TO AN EXCESSIVE ROLL INPUT SIGNAL. THE AZIMUTH OFF SET SETTING WAS TOO LARGE. SYSTEM EFFECT-IMPROPER ANALOG SIGNAL. ROLL CORRECTION TIME TOO LONG DUE TO A HIGH ROLL CORRECTION VOLTAGE. VEHICLE EFFECT-COMPOSITE DELAYED. POST-COMPOSITE TESTING REQUIRED TO SHOW PROPER OPERATION OF SYSTEM AFTER RESETTIN G PLATFORM OFFSET. CORRECTIVE ACTION-AZIMUTH OFFSET OF THE GUIDANCE PLATFORM SET TO PROVIDE A NOMINAL ROLL INPUT SIGNAL.					
						007871
GUIDANCE-ARMA-A/B PLATFORM AND CONTROL	AE51-0273/PC-900-94-023 PLATFORM	COMPOSITE-FACTORY	ESE 610401	FACTORY NO	NO ARMA NO	
	FAILURE MODE-FAIL DURING OPERATION-THE ROLL STRO "S" SATURATED AT 17 SECONDS WHICH PREVENTED ARMA ROLL CORRECTION & NO TIME FROM BEING DETERMINED. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. VEHICLE EFFECT-COMPOSITE RE-SCHEDULED. POST-COMPOSITE TESTING REQUIRED. CORRECTIVE ACTION-TWC AZIMUTH OFFSET OF THE GUIDANCE PLATFORM WAS SET TO PROVIDE A NOMINAL ROLL INPUT.					

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GENERAL DYNAMICS  
COMPAIR DIVISION

## DIFFICULTIES REVIEW-ORANGE SYSTEM-AIRBORNE

SYSTEM	TEST/REPORT NUMBER	DIP DATA SOURCE	VEHICLE DATE	SITE TIME	PRE ORN	VEHICLE NAME
SAS-SYSTEM	FAILED COMPONENT NAME	PART NUMBER	DATE	SITE TIME	PRE ORN	VEHICLE NAME
SURVANCE-ARMA-A/S PLATFORM AND CONTROL	ARMS-0002/PC-SCD-01-001 ACCELEROMETER	COMPOSITE-FACTORY	010000	FACTORY	NO	ARMA
<p>FAILURE MODE-ERRATIC OPERATION- FAILURE OF THE ACCELEROMETER STRING FREQUENCIES TO STABILIZE CAUSED STAGING TO OCCUR LATE. THIS WAS DUE TO THE CONFIGURATION OF THE TEST STAGINGMENT.</p> <p>SYSTEM EFFECT-ERRATIC OPERATION- ACCELEROMETER STRING FREQUENCIES DID NOT STABILIZE.</p> <p>VEHICLE EFFECT-COMPOSITE RECOMMENDED. COMPOSITE RE-SAM.</p> <p>CORRECTIVE ACTION-NOT KNOWN.</p>						
SURVANCE-ARMA-A/S PLATFORM AND CONTROL	ARMS-0003/PC-SCD-01-017 PLATFORM	COMPOSITE-FACTORY	010107	6	FACTORY	NO
<p>FAILURE MODE-OUT OF SPECIFICATION. VEHICLE ENGINES LINED AFTER 8 SECONDS, DURING THE ARMA ROLL STEERING PORTION OF THE PROGRAM. AN INCORRECT SETUP OF THE ARMA ROLL PLATFORM WAS THE CAUSE OF FAILURE.</p> <p>SYSTEM EFFECT-IMPROPER ANALOG SIGNAL.</p> <p>VEHICLE EFFECT-COMPOSITE RECOMMENDED. POST COMPOSITE TESTING REQUIRED.</p> <p>CORRECTIVE ACTION-ARMA ROLL PLATFORM WAS SET UP CORRECTLY.</p>						
SURVANCE-ARMA-A/S PLATFORM AND CONTROL	ARMS-0100/PC-SCD-01-000 ACCELEROMETER	COMPOSITE-FACTORY	001011	FACTORY	YES	ARMA
<p>FAILURE MODE-PREATURE OPERATION- VEHICLE CUTOFF COUNTER TIME OCCURRED EARLY BY 3 MILLISECONDS, DUE TO A MISADJUSTMENT OF ACCELEROMETER.</p> <p>SYSTEM EFFECT-IMPROPER DISCRETE- VEHICLE CUTOFF OCCURRED EARLY.</p> <p>VEHICLE EFFECT-COMPOSITE RECOMMENDED. COMPOSITE RE-SAM.</p> <p>CORRECTIVE ACTION-ACCELEROMETER TOLERANCE(S) REVISED.</p>						
SURVANCE-ARMA-A/S PLATFORM AND CONTROL	ARMS-0110/PC-001-00-71 PLATFORM	COMPTON	001007	11/CTR	YES	ARMA
<p>FAILURE MODE-OUT OF TOLERANCE. DIFFICULTY WAS ENCOUNTERED OBTAINING PROPER ARMA ACCELEROMETER READOUTS.</p> <p>SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. PROPER ARMA ACCELEROMETER READOUTS COULD NOT BE OBTAINED.</p> <p>VEHICLE EFFECT-COMPTON DELAYED. UNDETERMINED AMOUNT OF TIME DUE TO OTHER PROBLEMS OCCURRING AT THE SAME TIME.</p> <p>CORRECTIVE ACTION-UNKNOWN.</p>						





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GENERAL DYNAMICS  
COMBAT DIVISION

## DIFFICULTIES REVIEW-GUIDANCE SYSTEM-ALCORN

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP/TIME	DATE DIP	VEHICLE PART NO
VEHICLE EFFECT-PRIMITIVE PROFILATION CUTOFF. BECAUSE OF THE EARLY SECO AND RECO, R/V IMPACT WAS 80 NAUTICAL MILES AWAY.					
CORRECTIVE ACTION-UNRECORDED.					
GUIDANCE-ARM-A/S COMPUTER	SDA-AP264-052/21-003-00-110 GUIDANCE COMPUTER DELAY RESET UNIT	PL10MT	110P 640407	3706/07R NO ARMA 5.2 YES	9015279
FAILURE MODE-FAILURE TO OPERATE AT PRESCRIBED TIME. GUIDANCE COMPUTER WAS RESET AT 5.2 SECONDS INSTEAD OF THE PLANNED 9.0 SECONDS. THIS RESULTED FROM FAILURE OF THE 1-INCH NOTION SWITCH. DELAY RESET ACTIVATED BY UNUSUAL EJECTION RATHER THAN 1-INCH NOTION SWITCH.					
SYSTEM EFFECT-OPERATION STARTS TOO LATE. COMPUTER OPERATED WITH 9.2 SECOND ERROR DUE TO THE LATE RESET.					
VEHICLE EFFECT-IMPROPER TRAJECTORY. DELAY IN RESETTING COMPUTER CONTRIBUTED, IN PART, TO A RE-ENTRY VEHICLE OVERSHOOT OF 4.8 MILES.					
CORRECTIVE ACTION-NO CORRECTIVE ACTION TAKEN. COMPUTER OPERATION WAS SATISFACTORY. DELAY WAS CAUSED BY FAILURE OF 1-INCH NOTION SWITCH.					
GUIDANCE-ARM-A/S COMPUTER	CL-SHO-06-83 COMPUTER	COMPOSITE-FIB/DPL	80E 640512	3706/07R YES ARMA NO	9015279
FAILURE MODE-FAIL DURING OPERATION. GUIDANCE SYSTEM COMPOSITE TESTS COULD NOT BE COMPLETED.					
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.					
VEHICLE EFFECT-COMPOSITE ABORTED.					
CORRECTIVE ACTION-COMPUTER REPLACED.					
GUIDANCE-ARM-A/S COMPUTER	CL-SHO-06-44 COMPUTER	COMPOSITE-FIB/DPL	40E 640310	C/07R YES ARMA NO	9015279
FAILURE MODE-YAIL DURING OPERATION. COMPUTER FAILED DURING TEST. SECO AND RECO GENERATED AT SAME TIME. SECO GENERATED EARLY, YAW STEERING PROFILE WENT TO ZERO AND THEN TO NEGATIVE BETWEEN 19.5 AND 27.5 SECONDS AFTER COMPUTER START. COMPUTER WOULD NOT RESET. SECO AND RECO SIGNALS GENERATED AT POWER TRANSFER TO EXTERNAL.					
SYSTEM EFFECT-IMPROPER DISCRETE SIGNAL.					
VEHICLE EFFECT-COUNTERS RELAYED.					
CORRECTIVE ACTION-UNRECORDED					

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GENERAL DYNAMICS  
CORVAIR DIVISION

## DIFFICULTIES REVIEW-GUIDANCE SYSTEM-AZIMUTH

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE BIP	SITE TIME BIP	PRJ OWN	VEHICLE NAME VEHICLE PART NO
GUIDANCE-ARMA-A/S COMPUTER	21-340-01-06 COMPUTER	COMPOSITE-710/00A	46E 640804	C/NTR	YES ARMA NO	000441
FAILURE MODE-FAIL DURING OPERATION. COMPUTER FAILED DURING TEST.						
SYSTEM EFFECT-IMPROPER DISCRETE SIGNAL. COMPUTER RESET SIGNAL NOT GENERATED.						
VEHICLE EFFECT-COUNTDOWN DELAYED.						
CORRECTIVE ACTION-UNKNOWN.						
GUIDANCE-ARMA-A/S COMPUTER	ED/ANP244-018/01-301-00-48 COMPUTER	FLIGHT	46E 640812	OUTP-1/M TR YES ARMA NO	YES ARMA NO	000396
FAILURE MODE-PREATURE OPERATION-COMPUTER TIMING FAILED AT MINUS 0.20 SEC. AT COMPUTER SEQUENCE 23 AND REAS AN OROO MEAS CONSTANT ACTAL 4001 UNTIL COMPUTER SEQUENCE 65. OPERATION WAS THEN SATISFACTORY. ATTRIBUTED TO THE LIFTOFF AC QUATIC AND VIBRATION ENVIRONMENT.						
SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS-ENGINE CUTOFF DISCRETES WERE GENERATED AS FOLLOWS, RECO 2.340 SEC., RECO 2.300 SEC. AND RECO 2.000 SEC.						
VEHICLE EFFECT-PREATURE PROPULSION CUTOFF-THIS RESULTED IN MISSILE IMPACTING APPROX. 835 MILES DOWN RANGE.						
CORRECTIVE ACTION-RESULTS OF ATLAS SERIES 2/F WEAPON SYSTEM COMPUTER LIFTOFF AND STAGING PROBLEM (CLASP) INITIATED FOLLOWING EOP ACTION. GDA 2406 COMPUTER ENCLINER/VALVEHEAD. ARMA EOP 180 COMPUTER CONSTRAINED TREATMENT. ARMA EOP 1 20-1 TARGET BOMB CONSTRAINED TREATMENT ARMA EOP 121 LOSS TWO-STAGE SHOCKWAVES. GDA EOP 8409 AND AIR OROO HUFFLES A NO GDA EOP 8411 VIBRATION 2 INCH HALF-BLANKET.						
GUIDANCE-ARMA-A/S COMPUTER	PTA302/P1-200-05-05 ABC; CIRCUIT BOARD	COMPOSITE-J FACT	46E 640807	11/ETR	YES ARMA NO	007304
FAILURE MODE-FAIL DURING OPERATION. MEASUREMENT 1800M, TIME T, GULP1 DID NOT OCCUR.						
SYSTEM EFFECT-IMPROPER DISCRETE SIGNAL.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-MEASUREMENT. REPLACED ANALOG SIGNAL CONVERTER DUE TO DEFECTIVE LIMITER CARD IN THIS CIRCUITRY. NO RES ULTS REPORTED.						
GUIDANCE-ARMA-A/S COMPUTER	PTA302/P1-200-05-05 ABC; CIRCUIT BOARD	COMPOSITE-J FACT	46E 640807	11/ETR	YES ARMA NO	007304
FAILURE MODE-FAIL DURING OPERATION. TLM MEASUREMENT 1800M, AZIMUTH RESOLVED SIGNAL, CHANGED TO NORMAL UPON MOBILICA L IMMERSION.						

**COMMUNICATIONS DIVISION**  
**GENERAL INVESTIGATIONS**

**DIFFICULTY: MEDIUM-DIFFICULTY SYSTEMS-ADMINISTRATIVE**

SYSTEM NO.-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE	SITE TIME	PRE OFF	VEHICLE NAME PART NO
SYSTEM EFFECT-IMPROPER ANALOG SIGNAL.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-UNKNOWN. REPLACED ANALOG SIGNAL CONVERTER DUE TO DEFECTIVE LINE 128 CARD IN THIS CIRCUITRY. RESULT S NOT REPORTED.						
GUIDANCE-ARMA-A/S COMPUTER	60-AP264-002/DE-401-00-109 COMPUTER	FLIGHT	1097 031213	0817-24/ NO TR NO		
FAILURE MODE-OUT OF EXPECTED VALUE. GUIDANCE PRE-ARM SIGNAL TO THE S/V INDICATED A DECREASE IN SIGNAL LEVEL UNTIL R /V SEPARATED. PRE-ARM SIGNAL IS USED TO BLOW ARMERS IN S/V. DECREASE IN LEVEL BELIEVED CAUSED BY SHORTS SHORTING INS TEAD OF BURNING OPEN. SIMILAR LOSING OCCURRED ON MISSILES SEE, GUE, ONE, TWO, AND SIX. LONGERMODELS NOT AFFECT THE M A/M VEHICLE BATTERY.						
SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS-SHORT DURATION LOSING OF THE GUIDANCE POWER SUPPLY. LOSS WAS REMOVED WHEN S/V SEPARATED. NO DETRIMENTAL EFFECT ON SYSTEM PERFORMANCE.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-UNKNOWN.						
GUIDANCE-ARMA-A/S COMPUTER	60AS-1002/PI-002-SC-134 CIRCUIT BOARD	FLIGHT	1307 031009	11/ETR 44.3	YES NO	
FAILURE MODE-FAIL DURING OPERATION-AT 44 SECONDS THE BEGINNING OF THE 26 Z-ACCELERATION LEVEL (44.3 TO 51.7 SECONDS ), THE COMPUTER MALFUNCTIONED UNTIL STARTING AND THEREAFTER INTERMITTENTLY DURING THE PERIOD WHEN THE MISSILE LOST BY GUIDE STABILITY.						
SYSTEM EFFECT-OPERATION TOO LONG THIS MALFUNCTION RESULTED IN ACCUMULATED ERRORS IN Z-VELOCITY WHICH WOULD HAVE HAD HED LATE SECS AND WOOD SIGNALS.						
VEHICLE EFFECT-LATE SUSTAINER ENGINE CUTOFF. HAD THE MISSILE FLIGHT BEEN SATISFACTORY, THIS COMPUTER MALFUNCTION WOULD ULD HAVE CAUSED A SIGNIFICANTLY LONG IMPACT.						
CORRECTIVE ACTION-UNKNOWN.						
GUIDANCE-ARMA-A/S COMPUTER	60-63-007'S CIRCUIT BOARD	FLIGHT	437 031808	7-24/ETR 0.5	YES NO	
FAILURE MODE-FAIL DURING OPERATION. ONE CALCULATION MADE IN THE SEVENTH REARANCE OF THE SEVENTH COMPUTER CYCLE WAS IN ERROR. THE CALCULATION WAS IN THE CROSS RANGE ERROR FUNCTION. THE CAUSE WAS ISOLATED TO STORE CELLS ON BOARD 2234 S LOCATED IN THE B-BLOCK						
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. ONE CALCULATION WAS INCORRECT. NO OTHER COMPUTATIONS WERE BASED ON THE ERROR ; THEREFORE, SUBSEQUENT CALCULATIONS WERE NOT AFFECTED.						

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GENERAL DYNAMICS  
COMNAV DIVISION

## DIFFICULTIES REVIEW-SURVIVANCE SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	SIP DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME "110"	PRI OTH	VEHICLE NAME VEHICLE PART NO
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-NONE.						
SURVIVANCE-ARM-A/V COMPUTER	CI-540-01-79 COMPUTER	COMPOSITE-PRD/PR/L	7906780	C/VTR	YES NO	YES NO
FAILURE MODE-FAIL DURING OPERATION. COMPUTER TEST NO-80 INDICATIONS RECEIVED DURING COMBAT.						
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.						
VEHICLE EFFECT-COMBAT/NO ALBERT.						
CORRECTIVE ACTION-MEMORAND.						
SURVIVANCE-ARM-A/V COMPUTER	AO40-0044/79-00-03 GUIDANCE COMPUTER CIRCUITRY	FLIGHT	007-2/4	YES NO	YES NO	YES NO
FAILURE MODE-FAIL DURING OPERATION. EXCESSIVE VELOCITY COMPUTATIONS OCCURRED IN THE X AND Z VELOCITY CHANNELS SETTING 0.340 AND 0.371 SECONDS. MOST PROBABLE CAUSE WAS A DEFECTIVE SOLDER JOINT IN THE COMPUTER SHUTT REGISTER CIRCUITRY WITH A RESULTANT INTERMITTENT OPEN.						
SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS. ERROR IN Z-VELOCITY WAS A LOSS OF 9.00 FEET PER SECOND. MALFUNCTION OF X-Y VELOCITY CHANNELS RESULTED IN AN INCORRECT ADDITION OF 19.75 FEET PER SECOND.						
VEHICLE EFFECT-IMPROPER TRAJECTORY. IMPACT OF R/V WAS APPROXIMATELY 12 IN SHORT OF TARGET.						
CORRECTIVE ACTION-MEMORAND.						
SURVIVANCE-ARM-A/V COMPUTER	0400/01-501-00-04 COMPUTER	COMBAT/NO	001218	P/VTR	YES NO	YES NO
FAILURE MODE-FAIL DURING OPERATION.						
SYSTEM EFFECT-OPERATION STOPS PREMATURELY. LOSS OF GUIDANCE COMMANDS.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-MEMORAND.						
SURVIVANCE-ARM-A/V COMPUTER	AO:00-0001/00-000-00-13 SICKE	FLIGHT	187	P/VTR	YES NO	YES NO
FAILURE MODE-FAIL DURING OPERATION. THE COMPUTER MALFUNCTIONED AT LIFTOFF DUE TO AN INTERMITTENT OPEN SOLDER IN THE COMPUTER. THE FAILURE IS ATTRIBUTED TO THE ACQUATIC ENVIRONMENT DURING LIFTOFF. THIS SOLDER IS A LOW TENSILE TYPE LO CASE IN THE SIGHT COMPUTER SOLDER MATRIZ.						

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GENERAL DYNAMICS  
COMNAV DIVISION

## DIFFICULTIES REVIEW-SWISSANCE SYSTEM-AIRBORNE

SYSTEM	TEST/REPORT NUMBER	SWISSANCE SYSTEM-AIRBORNE	DATE	TIME	SWISSANCE SYSTEM-AIRBORNE	TEST/REPORT NUMBER
148-SYSTEM	FAILED COMPONENT NAME	SWISSANCE SYSTEM-AIRBORNE	DATE	TIME	SWISSANCE SYSTEM-AIRBORNE	TEST/REPORT NUMBER
SYSTEM EFFECT-OPERATION STOPS PREMATURELY. THIS TYPE OF FAILURE IS CONSIDERED TO BE A CLASS A MAJOR DEFECT, BY TIME UP, IT WOULD NOT HAVE PREVENTED GENERATION OF THE PRELIM COMMAND.						
VEHICLE EFFECT-IMPROPER TRAJECTORY.						
CORRECTIVE ACTION-CONSTRAINED COMPUTER CASE TREATMENT (ARMA ECP 180). THE STAGE COMPUTER SHOCKMOUNTS (ARMA ECP 181) . A COMPUTER ENCLOSURE AND INTERMEDIATE FOR MAINTENANCE BOTH LINED MULTIMETER FROM (ARMA ECP 182). COMPUTER TANKET 8 QARD CONSTRAINED TREATMENT (ARMA ECP 183-1).						
SWISSANCE-ARMA-A/B	ARMA-0184/71-000-01-16	COMPOSITE-B FACT	107	11/17/66	YES ARMA	000143
COMPUTER	COMPUTER	00102	00102	NO	NO	
FAILURE MODE-EMATIC OPERATION. DURING THE FACT THE TANK STEERING SIGNAL WENT NEGATIVE AND INDICATED A 30-60.						
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-COMPUTER WAS REPLACED WITH ANOTHER.						
SWISSANCE-ARMA-A/B	DATA/02-010-13-13	COMPOSITE-FRONT/OP	107	2/17/66	YES ARMA	000144
COMPUTER	CONNECTION COMPUTER CHASSIS	00000	00000	NO	NO	
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. DAMAGED JACK ON COMPUTER CHASSIS. PIN WAS BENT.						
SYSTEM EFFECT-OPERATION DOES NOT START. SWISSANCE FAILED INDICATION.						
VEHICLE EFFECT-COMPOSITE DELAYED.						
CORRECTIVE ACTION-CHANGED TARGET.						
SWISSANCE-ARMA-A/B	DATA/02-010-13-13	COMPOSITE-FRONT/OP	107	7/17/66	YES ARMA	000145
COMPUTER	CIRCUIT BOARD	00000	00000	NO	NO	
FAILURE MODE-EMATIC OPERATION. INTERMITTENT SWISSANCE FAIL LIGHT WAS NOTED ON CONSOLE.						
SYSTEM EFFECT-EMATIC OPERATION.						
VEHICLE EFFECT-NONE						
CORRECTIVE ACTION-REPLACEMENT OF CIRCUIT BOARD.						

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GENERAL DYNAMICS  
COMPAIR DIVISION

DIFFICULTIES REVIEW-GUIDANCE SYSTEM-AIRBORNE

SYSTEM	TEST/REPORT NUMBER	DIP DATA SOURCE	VEHICLE DATE	DATE	DATE	DATE	DATE	DATE	DATE
SUB-SYSTEM	FAILED COMPONENT NAME	PART NUMBER	DATE	DATE	DATE	DATE	DATE	DATE	DATE
GUIDANCE-ASMA-4/S COMPUTER	54470 TRANSMITTER	COMPOSITE-FIB/DFL	060214	F/MT	YES	ASMA	NO		000701
<p>FAILURE MODE-ERRATIC OPERATION. PRESENCE OF GUIDANCE FAIL INDICATION ON FIRST TARGET SELECTED. BELIEVED TO BE TRANSISTOR IN GUIDANCE COMPUTER.</p> <p>SYSTEM EFFECT-OPERATION STOPS PREMATURELY. GUIDANCE SYSTEM FAILED TO CONTINUE COUNTDOWN.</p> <p>VEHICLE EFFECT-COUNTDOWN DELAYED.</p> <p>CORRECTIVE ACTION-TRANSMITTERS UNAFFECTED BY LONG PERIODS OF LOW TEMPERATURE WERE INCLUDED IN REDESIGN OF GUIDANCE C COMPUTER.</p>									
GUIDANCE-ASMA-4/S COMPUTER	ASMA-1224 P1-803-00-03 ASMA GUIDANCE COMPUTER DIODE	FLIGHT	87	11/ETR	YES	ASMA	NO		007315
<p>FAILURE MODE-FAIL DURING OPERATION. INTERMITTENT OPEN DIODE IN THE MULTIPLICATION COUNTER DECODER MATRIX OF THE PRO SCAN TIMING UNIT.</p> <p>SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS. OPEN DIODE CAUSED COMPUTED X VELOCITY TO BE EMERGENCYLY INJECTED INTO THE Z VELOCITY CHANNEL.</p> <p>VEHICLE EFFECT-PRERATURE SUSTAINER ENGINE CUTOFF. THE COMPUTER ISSUED THE SUSTAINER AND VEHICLE CUTOFF DISCRETES.</p> <p>CORRECTIVE ACTION-THE CLASP PROGRAM INDICATED SUCH COMPUTER MALFUNCTIONS MAY BE DUE TO THE ACoustICAL ENVIRONMENT A Y LIFTOFF. GUIDANCE COMPUTERS WILL BE SHIELDED FROM ACoustICAL ENERGY BY AN ACoustICAL BLANKET AND MOUNTING OF COMPU TER WILL BE IMPROVED. COMPONENTS OF COMPUTER WILL BE COATED WITH SOUND ABSORBING MATERIAL.</p>									
GUIDANCE-ASMA-4/S COMPUTER	ASMA-8100/P1-800-01-24 COMPUTER-ASMA GUIDANCE	COMPOSITE-J FACT	87	11/ETR	YES	ASMA	NO		000235
<p>FAILURE MODE-FAIL DURING OPERATION-COMPUTER FAILED DURING TWO COMPOSITE PROBLEMS.</p> <p>SYSTEM EFFECT-UNKNOWN.</p> <p>VEHICLE EFFECT-NONE.</p> <p>CORRECTIVE ACTION-THE COMPUTER WAS REPLACED, NO RECURRENCE OF PROBLEM.</p>									
GUIDANCE-ASMA-4/S COMPUTER	ASMA YAW STEERING AMPLIFIER	COMPOSITE-FIB/DFL	87	F/MT	YES	ASMA	NO		000235
<p>FAILURE MODE-FAIL DURING OPERATION. GUIDANCE FAIL LIGHT ILLUMINATED DUE TO A FAILURE YAW STEERING AMPLIFIER</p> <p>SYSTEM EFFECT-OPERATION STOPS PREMATURELY. TERMINATED GUIDANCE COUNTDOWN SEQUENCE.</p>									

GENERAL DYNAMICS  
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DIFFICULTIES REVIEW-AVOIDANCE SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	SIP DATA SOURCE PART NUMBER	VEHICLE DATE SIP	SITE TIME SIP	PRE OTM	VENDOR NAME VENDOR PART NO	
VEHICLE EFFECT-REF COMPRESSION DELAYED. CORRECTIVE ACTION-AMPLIFIER REPLACED.							697836
AVOIDANCE-ARM-A/S COMPUTER	ASB-1087/FC-ECO-01-029 COMPUTER, TRANSMITTER	COMPOSITE-FACTORY	207 611009	FACTORY	YES NO	ARM 2-00031-539	696206
FAILURE MODE-OUT OF TOLERANCE. DATA INDICATED A STAGING DISCRETE TIME OF 41.3 SECONDS THE MAXIMUM TIME ALLOWED IS 4 1.6 SECONDS.							
SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS-STAGING DISCRETE OCCURRED 0.3 SECONDS TOO LATE DURING TEST.							
VEHICLE EFFECT-COMPOSITE DELAYED.							
CORRECTIVE ACTION-POST-COMPOSITE TESTS REQUIRED TO DETERMINE CAUSE OF IRREGULARITY. THIS CONDITION WOULD NOT RECUR DURING RETESTING. THE PROBLEM WAS ATTRIBUTED TO A COMPUTER COLD-ROOM CONDITION.							
AVOIDANCE-ARM-A/S COMPUTER	ASB-1087/FC-ECO-01-029 COMPUTER	COMPOSITE-FACTORY	207 611016	FACTORY	YES NO	ARM 2-00031-539	695431
FAILURE MODE-FAIL DURING OPERATION. THE YAW STEERING DATA DISPLAYED EXCESSIVE DISTORTION THROUGHOUT THE TEST. INITIATION SHOWED A FAULTY AGE SERVO MOTOR FOR PREAMPLIFIER.							
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.							
VEHICLE EFFECT-COMPOSITE REDUCED. POST-COMPOSITE TESTING REQUIRED TO ISOLATE SOURCE OF IRREGULARITY.							
CORRECTIVE ACTION-AGE PRE-AMPLIFIER REPLACED.							
AVOIDANCE-ARM-A/S COMPUTER	ASB-1087/FC-ECO-01-029 COMPUTER	COMPOSITE-FACTORY	207 611016	FACTORY	YES NO	ARM 2-00031-539	237825
FAILURE MODE-ERRATIC OPERATION. AVOIDANCE FAILED FOR SHORT PERIODS OF TIME RANGING FROM 4.8 TO 68.6 SECONDS.							
SYSTEM EFFECT-OPERATION DOES NOT START. AVOIDANCE FAIL RED INDICATION ON LCC.							
VEHICLE EFFECT-None.							
CORRECTIVE ACTION-None.							
AVOIDANCE-ARM-A/S COMPUTER	ASB-1087/FC-ECO-01-029 COMPUTER	COMPOSITE-FACTORY	207 611016	FACTORY	YES NO	ARM 2-00031-539	237825
FAILURE MODE-FAILED TO OPERATE AT PRESCRIBED TIME. TARGET 8 COULD NOT BE SELECTED.							



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## DIFFICULTIES REVIEW-SUIDAMT SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	BIP DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTM	VENDOR NAME VEHICLE PART NO	
SYSTEM EFFECT-ERRATIC OPERATION. A SUIDAMT FAIL RED INDICATION WAS RECEIVED ON THE LCC.							096347
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-UNKNOWN.							
GUIDANCE-ARMA-A/B COMPUTER	DA394/C1-3HO-02-24 COMPUTER	COMPOSITE-FPB/DPL	24E 610907	F/NTR	NO ARMA NO		096715
FAILURE MODE-ERRATIC OPERATION. STEPPING SWITCH 13 OPERATED ERRATICALLY.							
SYSTEM EFFECT-OPERATION DOES NOT START. SWITCH POSITION 14 DID NOT START.							
VEHICLE EFFECT-COMPOSITE DELAYED.							
CORRECTIVE ACTION-UNKNOWN.							
GUIDANCE-ARMA-A/B COMPUTER	A461-0142/P1-303-01-83 COMPUTER	COUNTDOWN	23E 610915	11/NTR	YES ARMA NO 7230063		093809
FAILURE MODE-FAILED DURING OPERATION. DURING ARMA GUIDANCE CHECKOUT, PHASE OF FACT TEST, NO GOS WERE RECEIVED ON TWO COMPUTER RUNS.							
SYSTEM EFFECT-ERRATIC OPERATION.							
VEHICLE EFFECT-COMPOSITE DELAYED.							
CORRECTIVE ACTION-REPLACE COMPUTER AND DIGITAL SIGNAL CONVERTER S/N 7140. THIS SAME COMPUTER SUBSEQUENTLY FAILED AGAIN DURING AN AUTOPILOT/GUIDANCE CHECKOUT.							
GUIDANCE-ARMA-A/B COMPUTER	A461-0265/DA320/C1-30F-19-11 COMPUTER	COMPOSITE-FPB/DPL	11-E 610907	C/NTR	YES ARMA NO		096719
FAILURE MODE-FAIL DURING OPERATION COMPUTER MALFUNCTION. SYSTEM EFFECT-OPERATION DOES NOT START.							
SYSTEM EFFECT-OPERATION DOES NOT START.							
VEHICLE EFFECT-COMPOSITE DELAYED.							
CORRECTIVE ACTION-UNKNOWN.							
GUIDANCE-ARMA-A/B COMPUTER	A461-0265/DA320/C1-30F-19-11 COMPUTER	COMPOSITE-FPB/DPL	11E 610907	C/NTR	YES ARMA NO		
FAILURE MODE-FAILED DURING OPERATION. COMPUTER FAILURE.							

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CONVAIR DIVISION

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DIFFICULTIES REVIEW-GUIDANCE SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	BIP DATA SOURCE PART NUMBER	VEHICLE DATE BIP	SITE TIME BIP	PRI OTH	VENDOR NAME VENDOR PART NO
SYSTEM EFFECT-OPERATION DOES NOT START. GUIDANCE FAIL.						
VEHICLE EFFECT-COMPOSITE DELAYED.						
CORRECTIVE ACTION-UNKNOWN.						
GUIDANCE-ARMA-A/S COMPUTER	AD61-0819/DA1570/CI-38P-13-11 COMPUTER	COMPOSITE-PRO/DPL 11-E 619003	11-E 619003	C/ATR	YES ARMA NO	998717
FAILURE MODE-FAIL DURING OPERATION. FAILURE OF COMPUTER TO PASS SELF CHECK.						
SYSTEM EFFECT-OPERATION DOES NOT START. GUIDANCE FAIL ARMED INDICATION ON LOG.						
VEHICLE EFFECT-COMPOSITE DELAYED.						
CORRECTIVE ACTION-UNKNOWN.						
GUIDANCE-ARMA-A/S COMPUTER	AD61-0803/DA1508/CI-38P-08-11 COMPUTER COUNTER	COMPOSITE-PRO/DPL 11E 619013	11E 619013	376-C/AT R	NO ARMA NO	998717
FAILURE MODE-FAIL DURING OPERATION GUIDANCE SYSTEM DIGITAL NO-60 BELIEVED TO BE CAUSED BY A TRANSIENT RESULTING FROM INVERTER START CAUSING COMPUTER TO LOSE A COUNT.						
SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS.						
VEHICLE EFFECT-NONE.						
CORRECTIVE ACTION-FILTER PLANNED TO BE INSTALLED IN FUTURE TO PROHIBIT SPIKES FROM GETTING THROUGH.						
GUIDANCE-ARMA-A/S COMPUTER	AZ61-0548/01-50E-0C-27 COMPUTER, DIODE	FLIGHT	27E 619007	081P-1/M TR	YES ARMA NO	997407
FAILURE MODE-ERRATIC OPERATION. IRREGULARITIES CONSISTING OF DISTINCT JUMPS IN THE COMPUTER AND VELOCITY CHANNEL WERE RECORDED AFTER ENGINE IGNITION, PRIOR TO LIFT OFF AND BEFORE THE VEHICLE EXPLOSION. THE IRREGULARITIES WERE ATTRIBUTED TO POSSIBLE INTERMITTENT OPERATION OF AN AND GATE IN THE REVERSIBLE COUNTER.						
SYSTEM EFFECT-ERRATIC OPERATION. AS A RESULT OF THE DIODE INTERMITTENT OPERATION, IT WAS ASSUMED THAT THE GATE DID NOT CHANGE ITS L WHEN REQUIRED THEREBY PREVENTING SUBSEQUENT STACKS FROM CHANGING STATE.						
VEHICLE EFFECT-NONE. VEHICLE EXPLOSION OCCURRED SHORTLY AFTER LIFT OFF DUE TO COMBUSTION INSTABILITY.						
CORRECTIVE ACTION-LINE ARMA FOR WITH ACOUSTIC MATERIAL.						

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DIFFICULTIES REVIEW-GUIDANCE SYSTEM-AIRBORNE

SYSTEM NAME-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	BIF DATA SOURCE PART NUMBER	WENT - E DATE DIF	SITE TIME DIF	PRJ OTH	VEHICLE NAME VEHICLE PART NO
GUIDANCE-ARMA-A/S COMPUTER	DA493/C1-2HO-08-11 COMPUTER	COMPOSITE-PRD/DPL	11E 810808	376C/MTR	YES ARMA NO	097310
FAILURE MODE-FAIL DURING OPERATION-TWO COMPUTER DIGITAL FAILURES WERE INDICATED.						
SYSTEM EFFECT-ERRATIC OPERATION-FIVE GUIDANCE FAIL INDICATIONS RECEIVED DURING TEST.						
VEHICLE EFFECT-COUNTDOWN DELAYED.						
CORRECTIVE ACTION-UNKNOWN-CAUSE OF COMPUTER FAILURES HAS NOT BEEN RESOLVED.						
GUIDANCE-ARMA-A/S COMPUTER	DA493C1-2HO-08-11 COMPUTER	COMPOSITE-PRD/DPL	11E 810808	376C/MTR	YES ARMA NO	094531
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. IMPROPER DIGITAL OUTPUT.						
SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS. A GUIDANCE NOT FAIL INTERLOCK SIGNAL WAS NOT RECEIVED BY THE LAUNCH CONTROL SYSTEM.						
VEHICLE EFFECT-COMPOSITE DELAYED.						
CORRECTIVE ACTION-UNKNOWN.						
GUIDANCE-ARMA-A/S COMPUTER	AA81-0073/PL-SCD-01-17 ANALOG SIGNAL CONVERTER	COMPOSITE-B FACT	17E 810805	11/ETR	YES ARMA NO	093754
FAILURE MODE-ERRATIC OPERATION. A DELAY IN COMMERCIAL FACT TEST WAS CAUSED BY A DEFECTIVE ANALOG SIGNAL CONVERTER.						
SYSTEM EFFECT-ERRATIC OPERATION.						
VEHICLE EFFECT-COMPOSITE RESCHEDULED. FACT TEST DELAYED ONE DAY.						
CORRECTIVE ACTION-REPLACED ANALOG SIGNAL CONVERTER.						
GUIDANCE-ARMA-A/S COMPUTER	AA81-0182/PC-SCD-01-036 COMPUTER, TRANSISTOR	COMPOSITE-FACTORY	38E 810905	FACTORY	YES ARMA NO	
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME-THE YAW STEERING SIGNAL INDICATED FAILURE OF THE COMPUTER TO GENERATE THE REQUIRED NEGATIVE VOLTAGE AT THE BEGINNING AND END OF THE 16 PROBLEM. FAILURE OF THE COMPUTER WAS ATTRIBUTED TO A COLD BOMB CONDITION.						
SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS. COMPUTER FAILED TO GENERATE PROPER OUTPUT SIGNALS.						
VEHICLE EFFECT-COMPOSITE RESCHEDULED. RETURN OF COMPOSITE REQUIRED.						

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DIFFICULTIES REVIEW-GUIDANCE SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-POB TEMPERATURE INCREASED.							999401
GUIDANCE-ARMA-A/S COMPUTER	AAS1-0041/PI-SC0-03-12 COMPUTER	COMPOSITE-J FACT	12C 810429	11.728	YES ARMA NO		999401
FAILURE MODE-ERRATIC OPERATION. THE X OFFSET DID NOT SET UP CORRECTLY. IT WAS SUSPECTED THAT THE GRAVITY OSCILLATOR WAS NOT STABLE.							
SYSTEM EFFECT-UNKNOWN.							
VEHICLE EFFECT-UNKNOWN.							
CORRECTIVE ACTION-THE 16 BOARD WAS REMOVED FROM THE COMPUTER AND THE DUMMY BOARD INSTALLED. THE INTEGRATOR DOT IN THE ACCELEROMETER WAS REPLACED.							
GUIDANCE-ARMA-A/S COMPUTER	AES1-0272/PC-SC0-01-043 COMPUTER	COMPOSITE-FACTORY	43C 810412	FACTORY	NO ARMA NO		999401
FAILURE MODE-PREATURE OPERATION-STAGING OCCURRED AT 37.2 SECONDS WHEN 40.23 SECONDS WAS NOMINAL. ACCELEROMETER SCALING CHANGE OCCURS AT 7-0 WITH LOT 11M TEST EQUIPMENT. AS A RESULT AN INITIAL SURGE OF FREQUENCY IS REMOVED BY THE COMPUTER AT 7-0 AND RESULTS IN EARLY STAGING.							
SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS.							
VEHICLE EFFECT-COMPOSITE RESCHEDULED. A PARTIAL COMPOSITE RETEST WAS REQUIRED.							
CORRECTIVE ACTION-THE LOT 2M TEST EQUIPMENT 10500 PANEL WAS MODIFIED TO PROGRAM THE ACCELEROMETER SCALING CHANGE PRIOR TO 7-0; ELIMINATING THE PROBLEM.							
GUIDANCE-ARMA-A/S COMPUTER	AES1-0287/PC-SC0-02-036 COMPUTER	COMPOSITE-FACTORY	33C 810319	FACTORY	NO ARMA NO		999401
FAILURE MODE-OUT OF TOLERANCE. THE YAW STEERING PROFILE VOLTAGES EXCEEDED THE MAXIMUM LIMITS THROUGHOUT THE TEST-THE SCALE WAS IMPROPERLY CALIBRATED.							
SYSTEM EFFECT-IMPROPER ANALOG VOLTAGES-COMPUTER OUTPUT TOO HIGH.							
VEHICLE EFFECT-COMPOSITE DELAYED. A SATISFACTORY POST COMPOSITE TEST WAS MADE AFTER THE YAW CHANNEL WAS PROPERLY CALIBRATED.							
CORRECTIVE ACTION-YAW CHANNEL RE-CALIBRATED.							

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## DIFFICULTIES REVIEW-GUIDANCE SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
GUIDANCE-AIRMA-A/B COMPUTER	AE80-0082/PC-SC0-D1-031 COMPUTER, AMPLIFIER	COMPOSITE-FACTORY	31E 810203	FACTORY	NO	ARMMA NO	896482
FAILURE MODE-ERRATIC OPERATION- OSCILLATIONS ON YAW STEERING SIGNAL. THE OSCILLATIONS DISAPPEARED AFTER SERVO ASSEMBLY PANEL FROM THE GUIDANCE CHECKOUT EQUIPMENT HAD BEEN REPLACED.							
SYSTEM EFFECT-ERRATIC OPERATION- GUIDANCE STEERING COMMAND ERRATIC.							
VEHICLE EFFECT-COMPOSITE RESCHEDULED, COMPOSITE RE-RAM.							
CORRECTIVE ACTION-REPLACED FAULTY SERVO AMPLIFIER IN AGE.							
GUIDANCE-AIRMA-A/B COMPUTER	AE80-1043/PC-SC0-08-080 TRANSISTOR	COMPOSITE-FACTORY	80E 801227	FACTORY	YES	ARMMA NO	896510
FAILURE MODE-FAIL DURING OPERATION-AN ABNORMAL YAW STEERING PROFILE WAS OBSERVED. THIS WAS ATTRIBUTED TO A COMPUTER COLD SOAK PROBLEM. IF THE COMPUTER IS ALLOWED TO COOL TOO RAPIDLY, CONDENSATION CAN FORM WITHIN CERTAIN TRANSISTORS.							
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.							
VEHICLE EFFECT-COMPOSITE RESCHEDULED. COMPOSITE RETEST WAS REQUIRED.							
CORRECTIVE ACTION-OPERATORS WERE CAUTIONED TO ALLOW A SUFFICIENT WARM UP PERIOD PRIOR TO CYCLING THE COMPUTER. ALSO, LATER PRODUCTION COMPUTERS WILL INCORPORATE TRANSISTORS WITH SETTERS TO ELIMINATE THE MOISTURE PROBLEM.							
GUIDANCE-AIRMA-A/B COMPUTER	AE80-1043/PC-SC0-08-080 COMPUTER	COMPOSITE-FACTORY	80F 801227	FACTORY	NO	ARMMA NO	896510
FAILURE MODE-PREMIATURE OPERATION-STAGING OCCURRED AT 20.3 SECONDS WHEN 40.25 SECONDS WAS NOMINAL. ACCELEROMETER SCALING CHANGE OCCURS AT T-36 IN LOT EN TEST. EQUIPMENT. AS A RESULT, AN INITIAL BURST OF FREQUENCY IS DEMED BY THE COMPUTER AT T-0 AND RESULTS IN EARLY STAGING.							
SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS.							
VEHICLE EFFECT-COMPOSITE RESCHEDULED. PARTIAL COMPOSITE RETEST WAS REQUIRED.							
CORRECTIVE ACTION-THE LOT 11N TEST EQUIPMENT WAS MODIFIED TO PROGRAM THE ACCELEROMETER SCALING CHANGE PRIOR TO T-0.							
GUIDANCE-AIRMA-A/B COMPUTER	AE80-1018/PC-SC0-08-014 COMPUTER	COMPOSITE-FACTORY	14E 801803	FACTORY	NO	ARMMA NO	896510
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME- THE VERMIS CUTOFF RELAY (AIRBORNE) DID NOT RESET WHEN THE MMS COMPUTER WAS RESET, DUE TO FAULTY AUTOMATIC COMPUTER RESET CIRCUITRY (AGE).							

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CONTRACT DIVISION

DIFFICULTIES REVIEW-GUIDANCE SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	YES OTM	VENDOR NAME VENDOR PART NO	
SYSTEM EFFECT-OPERATION TOO LONG.							99A 4
VEHICLE EFFECT-COMPOSITE RESCHEDULED. PARTIAL COMPOSITE RESET WAS REQUIRED.							
CONNECTIVE ACTION-THE AUTOMATIC RESET CIRCUITRY (ASD) WAS REPAIRED.							
GUIDANCE-ARMA-A/B COMPUTER	AEBG-0154/PI-402-00-80 COUNTER, CIRCUITRY	FLIGHT	800 800702	11/ETR 136	YES NO	ASMA	997856
FAILURE MODE-ERRATIC OPERATION. Z AXIS ACCELEROMETER CHANNEL INPUT TO COMPUTER DID NOT FUNCTION PROPERLY BETWEEN 13 8 AND 141 SECONDS. THE SIXTH STAGE OF THE REVERSIBLE COUNTER WHICH OPERATES AT LEVELS OVER 46 DID NOT READ-OUT PROPE RLY.							
SYSTEM EFFECT-OPERATION TOO LONG. FAILURE OF COUNTER TO READ-OUT PROPERLY, CAUSED LOW Z AXIS VELOCITY READING IN THE MAIN VELOCITY RESISTER. THE COMPUTED Z VELOCITY WAS THUS 304 FEET PER SECOND TOO LOW FROM 143 SECONDS TO END OF PL-4 DED FLIGHT.							
VEHICLE EFFECT-NONE. NO VEHICLE OR MISSION EFFECT INDICATED. YAW STEERING IS IMMEDIATE TO Z VELOCITY. BOOSTER CUT OFF DISCRETE IS FUNCTION OF Z VELOCITY ONLY. SUSTAINER CUTOFF WAS GIVEN BY RANGE SAFETY AUTOMATIC FUEL CUTOFF SIGNAL							
CONNECTIVE ACTION-REVISED PREFLIGHT CHECKOUT PROCEDURE TO ASSURE ADEQUATE TEST OF THIS FUNCTION.							
GUIDANCE-ARMA-A/B COMPUTER	AABG-0054/PI-401-00-80 CONVERTER-ANALOG SIGNAL	COUNTDOWN	820 800830	11/ETR NO	YES NO	ASMA	994450
FAILURE MODE-ERRATIC OPERATION. THE ANALOG SIGNAL CONVERTER EXHIBITED A MALFUNCTION DURING THE SECOND GAP TEST.							
SYSTEM EFFECT-NONE.							
VEHICLE EFFECT-COUNTDOWN ABORTED AND RESCHEDULED. THE TEST WAS TERMINATED TO TROUBLESHOOT THE PROBLEM.							
CONNECTIVE ACTION-THE ASC WAS REPLACED.							
GUIDANCE-ARMA-A/B COMPUTER	AABG-0054/PI-400-00-84 ANALOG DIGITAL SIGNAL CONVERTER	COMPOSITE-J FACT	840 800803	11/ETR -2400	YES NO	ASMA	996842
FAILURE MODE-ERRATIC OPERATION. DURING FACT TEST, THE DIGITAL SIGNAL CONVERTER MALFUNCTIONED.							
SYSTEM EFFECT-ERRATIC OPERATION.							
VEHICLE EFFECT-COMPOSITE DELAYED. COMPOSITE WAS DELAYED BY 100 MINUTES WHILE DEFECTIVE COMPONENT WAS REPLACED.							
CONNECTIVE ACTION-ANALOG DIGITAL SIGNAL CONVERTER WAS REPLACED. REPLACEMENT THEN OPERATED SATISFACTORILY.							

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GENERAL DYNAMICS  
COMPAIR DIVISION

## DIFFICULTIES REVIEW-GUIDANCE SYSTEM-ATROCINE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	DATE TIME DIP	PR1 OTM	VENDOR NAME VENDOR PART NO	
GUIDANCE-ARMA-A/S COMPUTER	PTA8986/PI-401-50-42 COMPUTER	787	400	11/ETR 4-46	YES NO	ARMA	001673
<p>FAILURE MODE-FAIL DURING OPERATION. AT PLUS 4.48 SECONDS, THE COMPUTER STARTED GAINING COUNTS AND LATER COMPUTER VA LUES BECAME GAMBLED. VIBRATION WAS SUSPECTED CAUSE OF THE MALFUNCTION.</p> <p>SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS.</p> <p>VEHICLE EFFECT-NONE.</p> <p>CORRECTIVE ACTION-COMPUTER REMOVED AFTER TEST FOR INVESTIGATION.</p>							
GUIDANCE-ARMA-A/S COMPUTER	PTA8986/PI-400-01-42	COMPOSITE-S FACT	400	11/ETR 800113	YES NO	ARMA	001676
<p>FAILURE MODE-OUT OF TOLERANCE. THE X OFFSET LOOPS WOULD NOT FUNCTION PROPERLY.</p> <p>SYSTEM EFFECT-ERRATIC OPERATION.</p> <p>VEHICLE EFFECT-NONE.</p> <p>CORRECTIVE ACTION- UNKNOWN.</p>							
GUIDANCE-ARMA-A/S COMPUTER	PTA8986/PI-400-01-42 COMPUTER	COMPOSITE-S FACT	400	11/ETR 800113	YES NO	ARMA	001675
<p>FAILURE MODE-OUT OF TOLERANCE. THE COMPUTER WAS NOT RESET AT -3 SECONDS AND THEREFORE DID NOT SOLVE THE CORRECT PRO BLEW. THIS WAS CAUSED BY FAILURE OF THE RESET CIRCUITRY IN THE GROUND TEST EQUIPMENT.</p> <p>SYSTEM EFFECT-OPERATION DOES NOT START. THE COMPUTER WAS NOT RESET AND DID NOT BEGIN COMPUTATION. THE WACETS WROS LEN.</p> <p>VEHICLE EFFECT-COMPOSITE RESCHEDULED.</p> <p>CORRECTIVE ACTION-REPLACED POWER SUPPLY IN GROUND RESET CIRCUITRY.</p>							
GUIDANCE-ARMA-A/S COMPUTER	PTA8986/PI-400-01-42 CONVERTER	COMPOSITE-S FACT	400	11/ETR 800113	YES NO	ARMA	
<p>FAILURE MODE-OUT OF TOLERANCE. THE ANALOG SIGNAL CONVERTER CHANNEL B6 (ROLL RESOLVER SIGNAL) APPEARED INOPERATIVE.</p> <p>SYSTEM EFFECT-IMPROPER ANALOG SIGNAL. THE ANALOG SIGNAL CONVERTER CHANNEL B6 APPEARED INOPERATIVE.</p> <p>VEHICLE EFFECT-NONE.</p>							

GENERAL DYNAMICS  
CONVAIR DIVISION

**DIPLOMATIC REVIEW SYSTEM-AIRBORNE**

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO
CORRECTIVE ACTION-REPLACE ANALOG SIGNAL CONVERTER. LAB CHECK WAS SATISFACTORY.						
GUIDANCE-GE MOD IIIIA-A/B RATE BEACON	AES1-0908/P4-404-00-100 RATE BEACON	COUNTDOWN	1090 800200	14/ETR -7200	YES NO	GENERAL ELECTRIC NO IC
FAILURE MODE-ERRATIC OPERATION. INTERMITTENT RETURN AT GROUND STATION FROM RATE BEACON. CAUSE UNKNOWN.						
SYSTEM EFFECT-ERRATIC OPERATION.						
VEHICLE EFFECT-COUNTDOWN DELAYED. PLANNED HOLD AT 7-100 EXTENDED 40 MINUTES TO REPLACE RATE BEACON AND TEST REPLACE NEW RATE BEACON.						
CORRECTIVE ACTION-REPLACE BEACON.						
GUIDANCE-GE MOD IIIIA-A/B RATE BEACON	AES1-0015/TC-400-07-000 RATE BEACON	COMPOSITE-FACTORY	SAD 810421	FACTORY	NO NO	GENERAL ELECTRIC NO IC
FAILURE MODE-ERRATIC OPERATION. SWEEPING OF THE VOLTAGE PROPORTIONAL TO RATE BEACON POWER OCCURRED JUST PRIOR TO POWER CHANGEOVER BACK TO EXTERNAL.						
SYSTEM EFFECT-ERRATIC OPERATION.						
VEHICLE EFFECT-COMPOSITE RECHARGED. POST-COMPOSITE TESTING WAS REQUIRED.						
CORRECTIVE ACTION-ATTRIBUTED TO UNSTABLE SIGNAL GENERATOR. COULD NOT REPEAT CONDITION DURING SUBSEQUENT RETESTS.						
GUIDANCE-GE MOD IIIIA-A/B RATE BEACON	ZC-7-215/P2-308-00-00 RATE BEACON	FLIGHT	SC 941223	12/ETR 190	YES NO	GENERAL ELECTRIC NO IC
FAILURE MODE-ERRATIC OPERATION. RATE SYSTEM TEMPORARY LOSS OF LOCK FROM 190 TO 194 SECONDS DUE TO POOR ANTENNA LOOK ANGLE.						
SYSTEM EFFECT-ERRATIC OPERATION. LOSS OF LOCK IN RATE SYSTEM BETWEEN 190 AND 194 SECONDS PRODUCED BAD RATE DATA FOR 50 DURING THAT INTERVAL. GUIDANCE SYSTEM DIFFERENTIATES TRACK DATA UNDER THESE CONDITIONS WHICH, BECAUSE OF NOISE AND NO SHORT SMOOTHING INTERVAL USED, PRODUCES NOISY SUBSTITUTE RATE DATA. ERRATIC STEERING COMMANDS GENERATED AS RESULT.						
VEHICLE EFFECT-NONE ALTHOUGH ERRATIC STEERING COMMANDS WERE GIVEN DURING RATE LOCK LOSS. NO LASTING EFFECT ON TRACK STORY RESULTED.						
CORRECTIVE ACTION-CONSIDERED LOWER SMOOTHING INTERVAL FOR TRACK DATA DURING RATE LOCK LOSSES. ALSO IMPROVED ANTENNA AIM AND CONTROL OF LOCK ANGLES.						



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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO
GUIDANCE-GE MOD 111A-A/B RATE BEACON	2M-7-634/FC-3CO-08-03 RATE BEACON	COMPOSITE-FACTORY	3C 381129	FACTORY	YES NO	GENERAL ELECTRIC NO IC
997415						
FAILURE MODE-OUT OF TOLERANCE. POWER WAS BELOW 0.36 WATTS AS INDICATED BY A MIDWESTERN RECORDER.						
SYSTEM EFFECT-OPERATION TOO LOW.						
VEHICLE EFFECT-COMPOSITE DELAYED.						
CORRECTIVE ACTION-UNKNOWN.						
GUIDANCE-GE MOD 111A-A/B PULSE BEACON	AE31-0163/PM-4CO-01-03 PULSE BEACON MAGNETRON CONNECTOR	COMPOSITE-B FACT 704106160	330 811031	14/ETR NOT STAT NO IC ED	YES NO	GENERAL ELECTRIC NO IC
998827						
FAILURE MODE-FAILED DURING OPERATION. LOSS OF 100 VOLT POWER AND HIGH MAGNETRON CURRENT TRACED TO WRONG CLOCKING OF CONNECTOR 3P1.						
SYSTEM EFFECT-OPERATION STOPS PREMATURELY.						
VEHICLE EFFECT-COMPOSITE DELAYED.						
CORRECTIVE ACTION-CORRECTOR AND PULSE BEACON REPLACED.						
GUIDANCE-GE MOD 111A-A/B PULSE BEACON	AE31-0011/FC-4CO-09-08A PULSE BEACON, CORRECTOR	COMPOSITE-FACTORY	860 910902	FACTORY 33A	NO NO	GENERAL ELECTRIC NO IC
999806						
FAILURE MODE-FAIL DURING OPERATION. AT 334 SECONDS TELEMETRY INDICATED A TEMPORARY LOSS OF INPUT POWER TO THE PULSE BEACON.						
SYSTEM EFFECT-ERRATIC OPERATION.						
VEHICLE EFFECT-COMPOSITE RESCHEDULED. POST- COMPOSITE TESTING REQUIRED.						
CORRECTIVE ACTION-FAULTY AC POWER PLUG TO PULSE BEACON WAS REPAIRED.						
GUIDANCE-GE MOD 111A-A/B PULSE BEACON	AE31-0015/FC-4CO-07-08A PULSE BEACON-CORRECTOR	COMPOSITE-FACTORY	860 910421	FACTORY	YES NO	GENERAL ELECTRIC NO IC
999608						
FAILURE MODE-FAIL DURING OPERATION. PRIOR TO START OF POST-COMPOSITE TESTING, THE PULSE BEACON OUTPUT POWER WAS LOW.						
SYSTEM EFFECT-OPERATION STOPS PREMATURELY.						
VEHICLE EFFECT-COMPOSITE RESCHEDULED. POST- COMPOSITE TESTING WAS REQUIRED.						
CORRECTIVE ACTION-REPLACED FAULTY AC POWER PLUG TO THE PULSE BEACON.						

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## DIFFICULTIES REVIEW-GUIDANCE SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
GUIDANCE-GE MOD 1111-A/B PULSE BEACON	AE81-0013/PC-4CO-07-068 PULSE BEACON	COMPOSITE-FACTORY	880 910421	FACTORY	YES NO	GENERAL ELECTRIC IC	999603
FAILURE MODE-DRIFT. MANY SMALL SURGES OF THE VOLTAGE PROPORTIONAL TO MAGNETRON CURRENT WERE OBSERVED ON THE TEST DATA.							
SYSTEM EFFECT-ERRATIC OPERATION.							
VEHICLE EFFECT-COMPOSITE RESCHEDULED. SYSTEM LEVEL AND COMPOSITE TESTING WAS REQUIRED.							
CORRECTIVE ACTION-PULSE BEACON WAS REPLACED.							
GUIDANCE-GE MOD 1111-A/B PULSE BEACON	AE81-0013/PC-4CO-01-088 PULSE BEACON	COMPOSITE-FACTORY	880 901219	FACTORY	YES NO	GENERAL ELECTRIC IC	999604
FAILURE MODE-DRIFT. PULSE BEACON SENSITIVITY OF -07 DBM DID NOT COMPARE WITH THE -72 DBM RECORDER ON THE SYSTEM TEST.							
SYSTEM EFFECT-OPERATION TOO LOW.							
VEHICLE EFFECT-COMPOSITE RESCHEDULED. POST-COMPOSITE TESTING WAS REQUIRED.							
CORRECTIVE ACTION-UNKNOWN.							
GUIDANCE-GE MOD 1111-A/B PULSE BEACON	A2M-27-A29/PC-4CO-01-48 PULSE BEACON	COMPOSITE-FACTORY	490 991210	FACTORY	YES NO	GENERAL ELECTRIC IC	999627
FAILURE MODE-ERRATIC OPERATION. THE PULSE BEACON AGC, MONITORED ON CHANNEL 13, DISPLAYED VARIATIONS FROM ABOUT 8 TO 40DBT REPRESENTING FROM 0.19 TO 0.98VOC. THIS OUTPUT WAS SUBSEQUENTLY MONITORED WITH A VTVM WITH NO VARIATIONS OCCURRING. POST-COMPOSITE TEST INDICATED NORMAL OPERATION OF THIS MEASUREMENT.							
SYSTEM EFFECT-ERRATIC OPERATION. RECORDINGS INDICATED VARIING PULSE BEACON POWER.							
VEHICLE EFFECT-COMPOSITE DELAYED. POST COMPOSITE TESTING COULD NOT DUPLICATE THE IRREGULARITY.							
CORRECTIVE ACTION-MODE-IRREGULARITY COULD NOT BE REPEATED.							
GUIDANCE-GE MOD 1111-A/B PULSE BEACON	A2M-27-B13/PC-4CO-07-26 RF CONNECTOR	COMPOSITE-FACTORY	290 990827	FACTORY	NO NO	GENERAL ELECTRIC IC	
FAILURE MODE-OUT OF TOLERANCE. THE SENSITIVITY OF THE PULSE BEACON COULD NOT BE DETERMINED. A LOOSE RF CONNECTOR IN THE TEST EQUIPMENT HAD PREVENTED ACCURATE MEASUREMENT OF THE PULSE BEACON SENSITIVITY.							
SYSTEM EFFECT-OPERATION TOO LOW.							
VEHICLE EFFECT-COMPOSITE DELAYED. POST COMPOSITE TEST REQUIRED TO DEMONSTRATE PROPER OPERATION OF THE GUIDANCE SYSTEM.							

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## DIFFICULTIES REVIEW-GUIDANCE SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VEHICLE NAME VEHICLE PART NO	
EN AFTER CORRECTING LOOSE RF CONNECTOR IN THE AGE.							003360
CORRECTIVE ACTION-RF CONNECTOR TIGHTENED.							
GUIDANCE-GE MOD 111A-A/B PULSE BEACON	FTA3046/P1-403-00-11 PULSE BEACON	PRF	11D 590722	11/ETR -4900	YES NO	GENERAL ELECTRIC IC	003293
FAILURE MODE-OUT OF TOLERANCE. PULSE BEACON OPERATING BELOW ITS NORMAL FREQUENCY.							
SYSTEM EFFECT-OPERATION TOO LOW.							
VEHICLE EFFECT-COUNTDOWN DELAYED. 35 MINUTES HOLD.							
CORRECTIVE ACTION-ADJUSTED TRACK SYSTEM RECEIVER LOCAL OSCILLATOR TO MATCH AIRBORNE BEACON FREQUENCY. REPLACED PULS E BEACON AFTER TEST.							
GUIDANCE-GE MOD 111A-A/B PULSE BEACON	ZN-7-854/TC-300-04-04A-05 PULSE BEACON	COMPOSITE-FACTORY	5C 390119	FACTORY	YES NO	GENERAL ELECTRIC IC	007804
FAILURE MODE-FAIL DURING OPERATION. PULSE BEACON UNLOCK CONDITION RESULTED IN NO DISCRETE SIGNALS BEING SENT TO FLI GHT CONTROL SYSTEM.							
SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS.							
VEHICLE EFFECT-COUNTDOWN OR COMPOSITE DELAYED OR RESCHEDULED.							
CORRECTIVE ACTION-NOT KNOWN.							
GUIDANCE-GE MOD 111A-A/B DECODER	1F4-400-01-113 DECODER	COMPOSITE-B FACT	113D 620629	14/ETR	YES NO	GENERAL ELECTRIC IC 764108621	007595
FAILURE MODE-ERRATIC OPERATION THE GUIDANCE DECODER, NO DISCRETE RELAY CIRCUIT; WAS TRANSMITTING INTERMITTENTLY ON THE GUIDANCE MONITOR SET PANEL.							
SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS.							
VEHICLE EFFECT-NONE.							
CORRECTIVE ACTION-UNKNOWN. DECODER REPLACED.							
GUIDANCE-GE MOD 111A-A/B DECODER	AZ62-0789/03-403-00-08 DECODER	COUNTDOWN	8D 620731	B-3/MT2	YES NO	GENERAL ELECTRIC IC	
FAILURE MODE-ERRATIC OPERATION. LOOP TEST FAULTS INDICATED ON LAP.							
SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS.							

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DIFFICULTIES REVIEW-SUIDANCE SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PSI OTHER	VENDOR NAME VENDOR PART NO	
VEHICLE EFFECT-COUNTDOWN ABORTED.							090278
CORRECTIVE ACTION-DECODER REPLACED.							
SUIDANCE-GE MOD IIIA-A/B DECODER	ARI41-0-107/PC-4CO-01-107 DECODER	COMPOSITE-FACTORY	107D 880107	FACTORY	YES NO	GENERAL ELECTRIC IC 7641D4861	090422
FAILURE MODE-PREATURE OPERATION-DECODER RELAYS 1 AND 2 WERE ACTIVATED THROUGHOUT THE TEST. THE RELAYS WERE ACTIVATED WHENEVER POWER WAS APPLIED TO THE DECODER-THIS WAS A MODEL IIIA TYPE UNIT.							
SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS-DECODER OUTPUT COMMANDS APPEARED WITHOUT INPUT STIMULI.							
VEHICLE EFFECT-COMPOSITE DELAYED. ADDITIONAL SYSTEM TEST REQUIRED.							
CORRECTIVE ACTION-THE DECODER WAS REJECTED AND REPLACED.							
SUIDANCE-GE MOD IIIA-A/B DECODER	A481-0118/PN-4CO-01-88 DECODER	COMPOSITE-B FACT	88D 810807	14/ETR	YES NO	GENERAL ELECTRIC IC	090370
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. DURING FACT, DISCRETES 1 AND 2 DID NOT APPEAR AT DECODER OUTPUT. CAUSE UNKNOWN.							
SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS.							
VEHICLE EFFECT-COMPOSITE DELAYED. TEST DELAYED TO REPLACE DECODER AND PULSE BEACON.							
CORRECTIVE ACTION-REPLACE DECODER AND PULSE BEACON.							
SUIDANCE-GE MOD IIIA-A/B DECODER	A280-0811/PC-4CO-08-077 DECODER	COMPOSITE-FACTORY	77D 800908	FACTORY	NO NO	GENERAL ELECTRIC IC	090278
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME-STARTING LOCKOUT AND STARTING DISCRETE SIGNALS WERE NOT GENERATED DUE TO FAULTY MESSAGE STRUCTURES IN THE C, O, T, S, (AGE).							
SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS							
VEHICLE EFFECT-COUNTDOWN OR COMPOSITE DELAYED OR RE-SCHEDULED. POST-COMPOSITE TESTING WAS REQUIRED.							
CORRECTIVE ACTION-MESSAGE REGISTER WAS REPAIRED.							
SUIDANCE-GE MOD IIIA-A/B DECODER	L480-448948-S/PN-4CO-08-48 DECODER	COMPOSITE-J FACT	48D 800411	14/ETR	YES NO	GENERAL ELECTRIC IC 8028083062	
FAILURE MODE-ERRATIC OPERATION. DURING INTERIORATION OF DECODER, IT RESPONDED TO TWO DIFFERENT ADDRESSES WHEN IT SHOULD HAVE RESPONDED ONLY TO ONE.							

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DIFFICULTIES REVIEW-GUIDANCE SYSTEM-AIMORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTH	VENDOR NAME VENDOR PART NO	
SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-DECODER WAS REPLACED.							094441
GUIDANCE-GE MOD 111A-A/B DECODER	LMSD-445982-2/P4-4CO-02-43 DECODER	COMPOSITE-1 FACT	4SD 800411	14/ETR	YES NO	GENERAL ELECTRIC IC	094442
FAILURE MODE-ERRATIC OPERATION. TELEMETRY DATA INDICATED THAT AN IMPROPER STAGING DISCRETE SIGNAL OUTPUT OCCURRED FROM RECORDER DURING PROGRAMMING OF THE VEHICLE CUTOFF DISCRETE. IMPROPER STAGING SIGNAL COULD NOT BE VERIFIED. SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-DECODER WAS REPLACED TO ASSURE SYSTEM CONFIDENCE.							
GUIDANCE-GE MOD 111A-A/B DECODER	AE80-0196/72-4CO-01-55 DECODER	COMPOSITE-FACTORY	3SD 000817	FACTORY	NO NO	GENERAL ELECTRIC IC	097399
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. RELAY NO.1 ACTIVATION (STAGING LOCKOUT AND STAGING) WAS NOT OBSERVED DURING THE TEST. RECORDER SHOWED THAT NO GUIDANCE DISCRETE MESSAGES WERE SENT FOR ACTIVATION. THE AGE TAPE READER HEAD APPARENTLY STUCK AS THIS DISCREPANCY COULD NOT BE DUPLICATED. SYSTEM EFFECT-OPERATION DOES NOT START. VEHICLE EFFECT-COMPOSITE RESCHEDULED. CORRECTIVE ACTION-NONE. RETURN OF COMPOSITE SATISFACTORY.							
GUIDANCE-GE MOD 111A-A/B DECODER	FT48948/79-4CO-02-29 DECODER	COMPOSITE-1 FACT	2SD 000818	14/ETR	YES NO	GENERAL ELECTRIC IC	098409
FAILURE MODE-OUT OF SPECIFICATION. TELEMETRED DATA FROM GUIDANCE DECODER WERE NOISY WITH LARGE MAGNITUDE OSCILLATIONS AT VARIOUS FREQUENCIES. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-DECODER WAS REMOVED AND TESTED IN GUIDANCE LABORATORY. COULD NOT DUPLICATE PROBLEM. CANISTER REIN STALLED AND PROBLEM CONTINUED. INVESTIGATION FURTHER.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP TIME	SITE DIP	PRI OTH	VEHICLE NAME VENDOR PART NO
GUIDANCE-GE MOD 111A-A/B DECODER	2-7-834/FC-3CO-03A-01 DECODER	COMPOSITE-FACTORY	5C 590111	5C/ETR	YES NO	GENERAL ELECTRIC NO IC
<p>FAILURE MODE-OUT OF TOLERANCE. PITCH AND YAW NEGATIVE PHASE AND ONE-HALF FULL PHASE WERE OUT OF TOLERANCE.</p> <p>SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.</p> <p>VEHICLE EFFECT-COMPOSITE DELAYED.</p> <p>CORRECTIVE ACTION-DECODER WAS ADJUSTED FOR PROPER PITCH AND YAW OUTPUT.</p>						
GUIDANCE-GE MOD 111A-A/B DECODER	FTA8181/P1-4CO-01-18 DECODER	COMPOSITE-B FACT	18D 590111	11/ETR -3120	YES NO	GENERAL ELECTRIC NO IC
<p>FAILURE MODE-OUT OF SPECIFICATION. AN UNEXPLAINED YAW COMMAND WAS RECEIVED AT THE AUTOPILOT RECORDERS IN THE BLOCKH CURSE DURING TEST 10 OF THE LOOP TEST.</p> <p>SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. AN IMPROPER AND UNEXPLAINED YAW STEERING COMMAND WAS APPARENTLY GENERATED BY THE GUIDANCE SYSTEM. LOOP TEST 10 WAS REPORTED NO-GO.</p> <p>VEHICLE EFFECT-COMPOSITE DELAYED. A 24 MINUTE HOLD WAS CALLED TO INVESTIGATE PROBLEM AND RERUN LOOP TEST.</p> <p>CORRECTIVE ACTION-LOOP TEST WAS RERUN DURING HOLD WITH SATISFACTORY RESULTS. AFTER THE FACT TEST, DECODER S/N 8 WAS REMOVED AND TESTED IN THE GUIDANCE LAB. RESULTS WERE SATISFACTORY. THE DECODER WAS REPLACED TO ASSURE SYSTEM CONFID ENCE.</p>						
GUIDANCE-GE MOD 111A-A/B ANTENNA AND WAVEGUIDE	ANES-0003-1300/FC-CO-04-0004-022 WAVEGUIDE	COMPOSITE-FACTORY	1300 850307	FACTORY	YES NO	GENERAL ELECTRIC NO IC
<p>FAILURE MODE-OUT OF TOLERANCE. THE RATE BEACON TRANSMITTED POWER WAS RECORDED AS 0.950 WATTS WHICH WAS APPROXIMATEL Y 2.4 DB HIGHER THAN THE EXPECTED 0.490 WATTS. A 2 DB ERROR HAD BEEN MADE IN CALIBRATION OF THE RF WAVEGUIDE.</p> <p>SYSTEM EFFECT-OPERATION TOO HIGH. RATE BEACON POWER OUTPUT WAS RECORDED AS 0.950 WATTS WHEN 0.490 WATTS WAS EXPECTE D.</p> <p>VEHICLE EFFECT-COMPOSITE RE-SCHEDULED. POST-COMPOSITE TESTING REQUIRED.</p> <p>CORRECTIVE ACTION-THE WAVEGUIDES WERE RECALIBRATED.</p>						
GUIDANCE-GE MOD 111A-A/B ANTENNA AND WAVEGUIDE	FTA9003/P1-4CO-01-11 ANTENNA	COMPOSITE-B FACT	11D 850706	11/ETR -3000	NO NO	GENERAL ELECTRIC NO IC
<p>FAILURE MODE-ERRATIC OPERATION. GROUND GUIDANCE STATION COULD NOT OBTAIN A SATISFACTORY PULSE LOCK DUE TO VEHICULAR , ELEVATION, AND PERSONNEL MOVEMENT IN THE TEST AREA.</p> <p>SYSTEM EFFECT-ERRATIC OPERATION.</p>						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIP DATA SOURCE PART NUMBER	VEHICLE DATE DIP	SITE TIME DIP	PRI OTM	VENDOR NAME VENDOR PART NO
VEHICLE EFFECT-COMPOSITE DELAYED. 3 MINUTES HOLD.						
CORRECTIVE ACTION-VEHICULAR: ELEVATOR, AND PERSONNEL MOVEMENT WERE HALTED.						
GUIDANCE-GE MOD 111A-A/S COMPUTER	24413-CI-SWD-05-11 COMPUTER	COMPOSITE-FWD/CP/L	11E 010331	STOC/MTS YES NO		
FAILURE MODE-FAIL DURING OPERATION. GUIDANCE FAIL LIGHT ILLUMINATED 8 MIN. 3 SEC. AFTER COUNTDOWN START.						
SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS. INABILITY TO SELECT TARGETS WITHOUT SETTING GUIDANCE FAIL INDICATIONS.						
VEHICLE EFFECT-COUNTDOWN ABORTED.						
CORRECTIVE ACTION-UNKNOWN.						

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997393